BURMA GAZETTEER

YAMÉTHIN DISTRICT

VOLUME A

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THE
YAMÈTHIN DISTRICT

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COMPILED BY

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PREFACE

For the Yamèthin Subdivision material was collected by Messrs. Richards and Abigail during the Settlement Operations there in 1925—27. Such of it as had not become out of date has been combined with information collected for the Pyinmana Subdivision during the present Settlement Operations somewhat on the lines of the more famous work on Chinese Metaphysics.

Much material has been taken bodily from the Gazetteer of Upper Burma and the Shan States and from the various Settlement Reports. I have also drawn on Harvey's History of Burma, the Glass Palace Chronicle, the Working Plans of the Pyinmana and Yamèthin Forest Divisions and the Mandalay District Gazetteer.

Mr. R. R. Langham-Carter, I.C.S., kindly placed at my disposal notes on a large variety of subjects made by him as Subdivisional Officer, Pyinmana, I am also indebted for notes and information to the following gentlemen :—

Mr. V. P. Sondhi (Geology and Minerals) ; Mr. G. Hundley, Mr. D. R. Donald, Mr. P. Howe, Mr. W. G. Crawford (Fauna) ; Mr. A. McLean (Agriculture and Flora) ; Mr. J. J. Bennison for advance census figures ; Mr. M. V. George (Irrigation) ; Mr. C. H. Philipp, Mr. D. W. Hughes, Mr. G. F. Ball (Forests) ; Mr. G. S. Darby (Railways) ; Mr. L. St. C. Rundlett and Mr. H. Marsland (Roads) ; U Po Kyin, A.T.M. (Famine and Land Records) ; Mr. P. W. Trutwein (Civil Justice) ; Mr. C. J. Heath (Police and Crime) ; Lieut.-Col. H. F. E. Childers, I.A. (Military Police and Government Stud Farm) ; Dr. K. R. Menon, L.M. & S. (Public Health and Jail) ; U Ba Chit

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CHAPTER I.

PHYSICAL DESCRIPTION.

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Situatio and Ar

The Yamèthin District, the most southerly district of the Mandalay Division of Upper Burma, lies between 19° 27′ and 20° 47′ North and 95° 34′ and 96° 39′ East with a gross area of 4,178 square miles.

It is bounded on the North by the Meiktila District, on the East by the Southern Shan States, on the South by the Toungoo District and on the West by the Magwe and Thayetmyo Districts. Of the gross area of the District 886 square miles are occupied for cultivation, 1,548 square miles are reserved forest, and 480 square miles are classed as culturable waste.

Con-figurati

The most remarkable feature of the Yamèthin District is the extraordinary difference between the northern and southern portions. The change in conditions is abrupt and is effected within a few miles on either side of the Sinthe *Chaung*.

To the north of that stream the Yamèthin Subdivision presents all the characteristics of the dry zone while to the south the Pyinmana Subdivision is akin to the adjoining districts of Lower Burma.

The District falls naturally into three divisions: (1) The Plains or Area of continuous cultivation, (2) The Uplands or Area of broken cultivation, and (3) The Forests.

The plains occupy the central portion of the district with higher ground both to the east and to the west. On the west the boundary follows the contour of the spurs that jut out from the Pegu Yoma and is very irregular. On the east it is almost straight north and south being sharply defined by the more abrupt and uniform rise of the Shan mountains. In the north round Pyawbwè the plain is some 20 to 30 miles in width but gradually narrows until at Shwemyo—near the boundary of Yamèthin and Pyinmana Subdivisions—it is only three or four miles wide. Thereafter it gradually widens out and attains its greatest width from Pyinmana southwards, stretching back along the courses of the larger streams into the foothills of the Yoma on the west.

From north to south the plains first slope upwards with a gentle gradient for 22 miles to Yamèthin Town and the Kyini Tank and from thence downwards for a distance of 67 miles to the Toungoo boundary. The upward slope gives a rise of 95 feet from 548 feet to 643 feet above sea level and the subsequent drop is of 403 feet to 470 feet above sea level at the Subdivisional boundary and to 240 feet above sea level at the southern boundary of the District. Owing to the unequal division of the plain by the Samôn and Nawin *chaungs* (both rising in the Kyini Tank) in the Yamèthin Subdivision and by the Sittang and Sinthe Rivers in the Pyinmana Subdivision, more of the plain slopes from west to east than from east to west. All round its edge and at various places within it the level of the plain is broken by elevated tracts of tree-covered *indaing* jungle.

The Uplands occupy the western portion of the Yamèthin Subdivision and the north-western corner of the Pyinmana Subdivision and fall into five divisions. First the north-west corner of the district cut off by the Yoma and consisting of the upper valley of the Yin *Chaung*. The second and third are the areas lying respectively north and south of the high watershed which runs from the Magwe border near Kyundon to Magyigôn and Shawbyugôn. The second division has rocky barren hills, rich narrow valleys and broad undulating table lands with good culturable sandy surfaces or with soils under stunted tree jungle unfit for cultivation. It is traversed by three large st·eams rising in the Yoma, the Chaunggauk, the Chaungmagyi and the Thapanchaung.

The third division is of similar character but towards the south is more broken and more heavily wooded. It is traversed by the Shweda and Thitsôn *Chaungs*. The fourth division lies to the south of this and is the most thickly forested portion of the Yamèthin Subdivision and contains the headwaters of the Sinthe River.

The fifth division lies in the Pyinmana Subdivision along the southern bank of the Sinthe. The country here is a succession of steep hills on which *taungya* cultivation is practised, divided by narrow valleys where rice is grown. Areas of continuous level cultivation are small and few. The jungle on the hills differs considerably from that found further south and in fact this area more resembles the Yamèthin Subdivision than the rest of the Pyinmana Subdivision.

The Forests occupy the whole of the eastern portion of the District from the edge of the plains to the borders of the Shan States and also the western and south-western portion of the Pyinmana Subdivision from the edge of the plain to the boundaries of the District.

Hills. The eastern portion of the District is occupied by the Paunglaung range of the Shan hills. The highest mountain within the boundaries of the District is the saddle-shaped peak of Byingyè situated on the border of the Loilong State almost due east from Shwemyo Railway Station. It rises to a height of 6,260 feet and is a prominent landscape although its height cannot at once be appreciated on account of the mountains of considerable altitude which rise around it and deprive it of the effect of isolation. In the early days of British rule a proposal was mooted to form a hill station on it and in 1892 Lieutenant Babington, Royal Artillery, reported favourably. But the mists and insects were found to be so disconcerting that after a mule track had been made and a few huts built the attempt was abandoned. The eminence of Byingyè is closely rivalled by the steep hog's back of Sintaung 6,022 feet in height which is situated almost due east of Yamèthin Town and joins the crest of the watershed to north and south. The average altitude of the Paunglaung Range diminishes from north to south but is on the whole well over 3,000 feet.

The Pegu Yoma which runs along the western boundary of the district does not rise so high, its average altitude along the crest of the main range is about 1,200 feet and the highest peak is only 1,616 feet above sea level. On account however of the numerous spurs, some of them of higher altitude than the Yoma itself, which are sent down from it to the plains it produces a much greater effect than does the eastern range. The most important of these spurs are the Kyawma in the Yamèthin Subdivision and the Pozaungdaung in the Pyinmana Subdivision.

The Kyawma or main ridge whose highest peak is 1,302 feet above sea level strikes eastwards from the Pegu Yoma towards the plains and is part of the watershed separating

the waters of the Irrawaddy and Sittang Rivers. Two prominent hill ridges named Minwun and Lethan *taungdans* with peaks of 1,314 feet and 1,674 feet respectively branch off from the Kyawma Range and run due south parallel to one another. In the north of the Yamèthin Subdivision are two prominent ridges rising from the plains, the Minlo Taung 846 feet above sea level running northwards from Pyawbwè Town to the Meiktila border and the Taungpila-Pasobyu Range a few miles west of the Yanaung-Yindaw Road. Pasobyu the chief peak, just over 1,000 feet in height, is occupied by a helio station in communication with Meiktila and Pyawbwè.

The Pozaungdaung—really a continuation of the Lethan *taungdan*—rises to a height of 2,035 feet and forms the watershed between the Sinthe and Ngalaik streams. It runs parallel to the railway from the northern border of the Pyinmana Subdivision as far south as Pyinmana Town where the civil station is built on its southern extremity. After dropping here to the plains it reappears in the high ground forming the Ela Fuel Reserve and further on in the hills which rise from the south bank of the Yeni Stream, and run parallel to the railway at distance of 6 miles west from it. These hills reach a height of 1,016 feet and are called the Sangyitaung. Their crest was much used by dacoits and cattle thieves as a secluded route between Upper and Lower Burma during the disturbed times which preceded and followed the Annexation and is still known as the "*Thuko-lan.*"

ivers. The northern plains of the Yamèthin Subdivision are watered by five considerable streams flowing east and north. The Chaunggauk and Chaungmagyi rise in the Yoma and fill the Nyaungyan Tank in the Meiktila District. The Shweda rises in the hills west of Myohla, fills the Kadin Tank and finally flows into the Kyauksè Tank. The Thitsôn rises in the Magwe border hills and by means of several important works irrigates about half of the Pyawbwè Township, and fills the Mindan Tank outside Pyawbwè Town, the excess water eventually reaching the Samôn near Shawbyugôn on the northern border of the District. The Samôn is the northern outlet from the Kyini Tank, from where it flows due north through the Yamèthin Township into the Kyauksè Tank, and finally falls into the Myitngè River.

The chief southward flowing streams of the Yamèthin Subdivision are on the west the Môn Gyaung, Pyazi and Myohla *Chaungs* all tributaries of the Sinthe and on the east the Nawin *Chaung* which is the southern outlet of the Kyini Tank from which it flows due south and, after receiving

the waters of the Nyaunggaing, the Mon, and other smaller streams also falls into the Sinthe.

The largest river of the District is the Paunglaung or Sittang which is navigable for small boats all the year round and of which all the other streams of Pyinmana Subdivision are affluents. It rises on the southern flank of the Sintaung, east of Yamèthin, and for the first part of its course runs through a wild and mountainous country until it debouches into the plains near Kyidaung almost due east of Pyinmana whence it flows south-west and south in a rather tortuous course to the Toungoo border, and thereafter under the name of Sittang flows into the Gulf of Martaban. On the way it is joined on the west by the Yezin, the Sinthe, the Yônbin and the Yeni and on the east by a number of hill streams of which the Mèhaw is the largest. It forms the principal drainage channel of the southern half of the Pyinmana Subdivision as its tributary the Sinthe does of the northern.

On the northern declivity of the Sintaung there rises another smaller Paunglaung, known lower down as the Myittha which flows northwards and joins the Irrawaddy at Ava.

The Sinthe rises at the north-west corner of Pyinmana Subdivision under the crest of the Yoma and flows through hilly country until it emerges from the picturesque gorge which it has cut for itself through the Pozaungdaung Range. Here the stream is overhung on both sides by wooded hills 1,200 feet high rising sheer from the water's edge, the northern cliff crowned by the white Hlesan Pagoda. From this point it continues its south-easterly course along the Subdivisional boundary until it meets the Nawin Stream and thence runs south through two-thirds of the Subdivision until it meets the Sittang-Paunglaung at Sinthewa.

The Sinthe has many tributaries of which the principal is the Ngalaik which joins it on the west not far from its mouth. The Ngalaik comes from the northwest and drains the country between the Pozaungdaung and the Yoma and on it is situated the town of Pyinmana. It brings down with it the waters of the Taungnyo and Chaungmagyi, themselves not inconsiderable streams. The streams which flow into the Sinthe from the east are small—except the Nawin—and the Mazi is the most important of them.

The Yonbin, with its tributaries the Palwe and Chaungmangè, drains a large area in the centre and west of the Pyinmana Subdivision. Rising in the Minbyin forest near the borders of the Thayetmyo District, its course is practically due east, except for a bend round the north of the Ela Fuel Reserve, until it joins the Sittang at Yonbinzaung near Ela.

The Yeni comes from the south-west and after skirting the Sangyi hills runs south-eastwards through Thawatti to its junction with the Sittang at Yeni close to the Toungoo border.

At their sources all these streams, except the Samôn and Nawin, present the same appearance with steep falls and rocky pools.

While those on the east are mostly perennial, those that come in from the west broaden out into wide sandy beds often with a constantly changing channel, and dry up soon after the cessation of the rains.

Lakes.

The only lakes are the Inbaung *In*, three miles south-west of Myohla in the Yamèthin Township, which lies in a circle of the hills and is guarded by a *Nat* who lives in a *Pauk-pin* on the southern side, and the Ingyaung *In* which lies in the Palwè Forest Reserve and covers an area of six square miles.

The other natural expanses of water which occur would be more correctly described as marshes than as lakes. The largest of them is the Neyaungbya *In*, about two miles north of Pyinmana Town between the railway line and the Sinthe River. It has an area of about 2½ square miles and is fed by the drainage of the eastern slopes of the Pozaungdaung Range. Of the others, the more noteworthy are the Peikthwè *In* between Naungbo and Thègaw—the northern part of which is called Gwedaukyo *In*—the Htein *In* near the railway station of that name, the Pauk *In* near Sisôngon Village and the Sèdongyi *In* not far from Ela. Artificial sheets of water used for irrigation purposes are described in Chapter IV.

Climate and Rainfall.

Climatically the Yamèthin District is on the border line between the Dry and Wet Zones. The Yamèthin Sub-division falls within the dry zone but the climate is more pleasant than in many other parts. A continuous wind tempers the fierceness of the hot months and during the monsoon, except after a prolonged break in the rains, the temperature is pleasantly cool. Indeed Yamèthin has the reputation of being the coolest station in the dry zone. The Pyinmana Subdivision falls just within the wet zone. The climate is an agreeable mean between the moist heat of Lower Burma and the excessive temperatures of the dry zone. The prevailing wind is from the north during the cold weather which lasts from November to February and for the rest of the year from a point East of South, the monsoon being deflected in this direction by the Paunglaung Range. The climate is not oppressive at any time of year. A cool breeze blows throughout the hot weather and the

rains and there are few of the thick morning fogs which render disagreeable the cold weather of Lower Burma.

The following table shows the average maximum and minimum temperatures during the months of April, July and December for the last five years. The temperatures were recorded at the Civil Hospital, Yamèthin, and the Central Farm, Pyinmana.

Year.	Average Maximum and Minimum Temperatures.					
	April.		July.		December.	
	Max.	Min.	Max.	Min.	Max.	Min.
Yamèthin.						
1927 ...	97·20	75·10	90·00	75·30	78·50	55·50
1928 ...	98·50	75·80	86·70	73·30	85·91	59·77
1929 ...	97·72	74·62	87·36	74·24	88·65	59·81
1930 ...	100·73	77·35	88·26	74·84	83·90	57·65
1931 ...	102·16	78·07	90·07	74·91	84·27	61·80
Pyinmana.						
1927 ...	93·40	81·40	83·87	77·68	78·81	65·35
1928 ...	101·33	75·20	88·08	74·16	87·80	58·64
1929 ...	100·77	74·63	87·03	73·26	88·77	59·74
1930 ...	103·63	74·53	88·64	73·84	86·90	56·45
1931 ...	104·90	75·77	88·90	73·26	82·00	62·33

The minimum December temperatures do not give a true idea of the cold weather as January is nearly always the coldest month of all. The highest temperature recorded is 109 in Pyinmana in May 1930 and April 1931 and the lowest 46 at the same station in January 1930. Corresponding figures for the Yamèthin are 107 in April 1931 and 50·7 in December 1928.

The following table shows the extremes of temperature for the five years for which average figures have been given above.

Year.	Extremes of Temperature.							
	Yamèthin.				Pyinmana.			
	Month.	Max.	Min.	Month.	Month.	Max.	Min.	Month.
1927 ...	April	103·8	52·0	Dec.	April	101	60	Dec.
1928 ...	April	102·3	50·7	Dec.	April	106	50	Dec.
1929 ...	April	102·9	57·3	Dec.	May	105	50	Jan.
1930 ...	April	105·1	52·0	Dec.	May	109	46	Jan.
1931 ...	April	107·1	52·3	Dec.	April	109	48	Jan.

Broadly speaking while the climate of Pyinmana is settled and regular being damp for six months of the year and dry for the rest, with a rainfall generally sufficient for the successful cultivation of rice, the disadvantages of a climatic borderland are found in the Yamèthin Subdivision which though capable in good years of producing the crops of both climates is only too often incapable of producing the crops of either. In good years plentiful crops of paddy, sesamum and maize are produced, but the rainfall is excedingly capricious and has been known to occur in such a way as to spoil every kind of crop.

The subjoined table shows the average monthly and annual rainfall at each recording station in the district for the 20 years 1911 to 1930.

Station.	January-March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Yanaung	·19	1·25	5·92	4·37	3·57	5·33	6·45	5·97	2·31	·40	35·76
Pyawbwè	·33	1·07	4·98	4·01	3·24	5·19	5·75	4·38	2·15	·47	31·57
Yamèthin	37	1·35	4·93	4·57	3·57	5·82	7·11	6·04	2·83	·57	37·16
Tatkôn *	·39	1·89	6·17	5·09	5·20	7·45	7·06	5·39	2·50	·18	41·32
Pyinmana	·09	1·48	5·57	8·80	10·97	12·21	8·68	6·15	2·13	·34	56·42

* Opened in 1916.

Mr. Gibson in his Settlement Report (1898—1901) pointed out that the rainfall diminished from south to north roughly at the rate of 6 inches for every 20 miles. The difference of

0 inches in 34 miles between Pyawbwè and Tatkôn in the bove table shows that this rate is still correct with the ualification that the progression is hastened by the sudden hange from wet to dry zone at the subdivisional boundary. Thus Tatkôn which lies only a couple of miles north of this oundary receives an average fall of 15 inches less than Pyinmana 29 miles distant to the south. Moreover the hills n either side draw the rain away from the plains and there s also little doubt that the eastern side of the district gets nore rain than the western.

In Yamèthin during the 10 years prior to the first Settlement in 1901 the rainfall was favourable in two years, ndifferent in four, bad in three and completely failed in one—896 when there was only 19 inches. During the next 26 years up to the Second Settlement six seasons only were good, eight were fair, six were poor, five were bad and there was complete failure in one—1920 when the rainfall was again only 19 inches at Pyawbwè and 23 inches in Yamèthin. Of the next five years one was good, one fair, one poor and the last two bad.

In Pyinmana of the ten years prior to first Settlement six were good, two indifferent and two bad. Of the ten years between First and Second Settlement only four were classed as good while the remainder were poor—1911-12 being the worst. Of the next twenty years, ten were good, four were fair, four poor, and two bad. In some of the poorer years although the rainfall was above the average, failure was caused by faulty distribution giving an excess or defect of rain at critical periods.

In Yamèthin, September has as a rule the heaviest rainfall. As in other dry zone areas there is a break in the middle of he rains, the fall in June and September-October being heavier than in July and August. Of late years there has, however, been a tendency towards a shortage of the May-une and September-October falls accompanied by a heavier all in August. The result has been that ploughing and broadcasting have frequently been held up and shortage of ate rains has failed to swell the crops. Heavy rains in the middle of the season have at times been disastrous to *ya* rops. Immense damage has also been done by torrential atter rains as when at Yamèthin 7 inches fell in November 921, 11 inches in October 1922, nearly 12½ inches in October 1925 and over 17 inches in October 1926. In the ast year Tatkôn recorded 15 inches in both September and October.

In Pyinmana, August is on the average the wettest month f the year. The July-August break of the dry zone does

however often occur and if it is prolonged it delays the preparation of the ground and the planting of long-lived varieties of paddy to such an extent that the crop is short; and it may even prevent altogether the cultivation of the higher-lying fields. Failure of rain at this time is however not so serious or so common as at the end of October and in November, perhaps the most important period of the cultivating season.

Drought and Floods.

Drought is a constant source of anxiety in the Yamèthin Subdivision. In Burmese times want of rain for consecutive years between 1800 and 1810 caused a serious famine. Three-fourths of the Pyawbwè Township were depopulated and not till after 1835 were the lands which had lapsed into jungle re-occupied. From that year up to the Annexation there is no record of any serious famine but the early years of British rule were marked by bad seasons and in 1890 and again in 1896 drought was so severe that famine relief works on a considerable scale had to be opened to mitigate the general distress. In 1901-02 rain was generally deficient and large areas remained unsown. In 1906-07 there was drought in September and paddy failed though *ya* crops were good. In 1911-12 early and middle rains were scanty and late rains failed. In 1912-13 there was drought in August and September and good late rains were too late to save the crop. In 1918-19 and 1919-20 rain was deficient and crops very light. Then followed a disastrous season in 1920-21. Early rains failed and long breaks during the mid-monsoon withered the sesamum. A large part of the subdivision remained unplanted and numerous relief works had to be started for the relief of distress. The long delay in the breaking of the monsoon in 1931 prevented the sowing of dry crops until very late and following on the failure of the paddy harvest gave rise to widespread distress necessitating the opening of relief works. Even in Pyinmana the poor harvest coupled with the general economic depression necessitated the opening of some relief works.

Sudden heavy rain, especially in October, is the cause of occasional floods. The year 1926-27 was notable on account of the damage caused by the abnormally heavy rain in October. The Yindaw Tank broke, about 100 acres of paddy were wiped out and most of the bridges along the Yanaung-Yindaw Road were swept away. A phenomenal rise in the Thitsôn *chaung* caused the complete destruction of the Hteinnyetkon Weir water gates. The Chaungmagyi flooded out two villages and covered a large area of paddy land with a thick deposit of sand. Damage was also caused on a smaller scale by numerous tanks and *chaungs* all over the

Subdivision. Later in May 1927 there was very heavy rain for several days which owing to the previous breakdown of the Hteinnyetkôn Weir flooded the country between there and the Kyauksè Tank and demolished most of the bridges along the Pyawbwè-Kyauksè Road.

In the Pyinmana Subdivision the rainfall is sufficient for the rice crop and anything in the nature of drought or of a total and general failure of crops is unknown. Untimeliness of the rainfall, however, is a frequent cause of partial failures, enforced fallows, and short crops due to uncertainty at two critical periods—when the crop is about to be planted and when the ear is filling. The year 1930-31 is a good example of this. The rains ceased abruptly in October with the result that in many parts of the Subdivision though the straw was fine there was no grain in the ear.

Here and there flooding takes place along the banks of the larger streams. Occasionally the early sesamum and maize crops suffer considerable damage from sudden rises in the streams at the end of August and the beginning of September. In September 1900 the banks of the Yônbin *Chaung* were breached by an unusually large volume of water which swamped the country to north and south, drowning the standing paddy over some 3,000 acres and considerably damaging the railway line. But the most serious floods occur on the right bank of the Sittang and are due to the overflow at an angle of a sudden bend in the course of the river. To prevent this a bund has been erected which extends from Ela to Alègyun but further prolongation is required. It was formerly called the Myothugyi's Embankment as the original portion across the angle at Yônbinzaung was erected under the auspices of the Ela Headman. It is now maintained by the Irrigation Branch of the Public Works Department. In September 1929 the Paunglaung, Yônbin, Yeni and other streams all overflowed their banks with the result that both this bund and the bund of the Ela Tank breached in several places. Crops on about 3,000 acres were totally or partially destroyed, the main railway line was breached at Pyiwin and Thawatti and the Taungdwingyi line near Pyudwin. The Pyilôn-chantha tank also breached its bund and the Shanzu Road.

Mr. V. P. Sondhi, Assistant Superintendent, Geological Survey of India has kindly supplied the following note on the geology of the District. Geol

The Yamèthin District occupies a roughly rectangular trough-like area between the Pegu Yoma and the Shan Plateau. On the west the watershed of the Yoma forms a natural district boundary and on the east the district

encroaches deeply on the foothills of the Shan Plateau, approximately up to longitude 96° 30′.

Geologically the district falls readily into two major divisions (1) the younger sedimentary rocks covering the area between the Shan foothills and the western boundary of the district, and (2) the crystalline rocks and older deposits of the Shan foothills, lying approximately east of longitude 96° 15′. It will, therefore, be convenient briefly to describe the two divisions separately.

(1) The younger sedimentary deposits of the area range in age from the Upper Tertiary to the Recent formations and comprise the following rock series :—

Alluvium.
Irrawadian series.
Pegu series.

Alluvium.—The lowlying tract running north and south along the western edge of the Shan Plateau is covered with a deposit of alluvium, in which, speaking generally, three different types are recognisable. The low flat portions are covered with a grey sandy loam, which is very fertile, the higher grounds fringing the hills in the west are capped with a reddish sandy soil containing brownish black ferruginous concretions, and the still higher elevations are covered with boulders of metamorphic rocks comprising gneisses and schists derived from the Shan Plateau, varying in size from peas to boulders over a foot in diameter. On one of such elevated areas the Civil Station of Pyinmana is built.

Tongues of alluvium run up the major stream valleys and a few patches are found enclosed in the Irrawadian series.

Irrawadian series.—The Irrawadian series covers a large area of the district forming the low hilly country between the alluvial flat and the main mass of the Pegu Yomas. On the east it is seen to merge gradually into the alluvium so that the delineation of an exact boundary between the two deposits is a matter of considerable difficulty. And on the west the series passes imperceptibly into the Pegu series, where also the boundary line is equally ambiguous in view of the fact that the basal beds of the Irrawadians bear a strong lithological resemblance to the uppermost Pegus.

The prevailing rock types are the loose, coarse, reddish-brown, gritty sandstones and yellowish shales. Locally the sandstone is fine grained and micaceous, and weathers into reddish-brown soil. At some places beds of ferruginous sandstones occur and are characterised by a segregation of iron-ore forming layers of small thickness showing concentric and vesicular structures. Superficial formation of red soil

containing variable amounts of quartz-pebbles are of widespread occurrence. Fossilwood, chiefly of dicotyledonous type, is met with in the deposit, but is not so common as is typical of the series in many other parts. Vertebrate and invertebrate fossils are very scarce though not unknown.

The mud springs from which thin slushy mud oozes out near Myohla (20° 21′ : 96° 6′) are situated in this series.

An outcrop of this series occurs as an outlier in a broad syncline in the Pegu series towards the north-west of the district. Here it is composed of soft, incoherent white sands, containing abundant fossil wood and numerous calcareous root-like concretions. The rocks of the Pegu series surrounding the outlier are more arenaceous, more nearly resembling the Irrawadians in lithology than they do further away. Thin impersistent bands of lateritic conglomerate are seen in the stream sections, but they cannot be traced for any considerable distance owing to the presence of overlying Plateau Red Earth, a formation of gritty red earth usually with quartz pebbles and fossil wood fragments capping the flatter portions of the country occupied by the Irrawadian as well as the Pegus. A good example of the succession of clays and sands containing lateritic conglomerate and fossil wood is seen in the stream section half a mile north of the village of Kôndan (20° 43′ : 95° 37′). In the same place a pronounced unconformity is also seen. Shaley sands unconformably overlain by whitish sandstone and dipping west-south-west at 25 degrees are faulted against contorted shaley clays dipping in the same direction at an angle of 40 degrees.

Some distance to the south of the above locality near Tègyigôn and Mi-paya-gôn white sandstone interbedded with buff clay and conglomerate is seen dipping west or slightly south of west at angles varying from 30 to 40 degrees.

The soft sandrock composing the deposit is generally very susceptible to agents of denudations, and the bedding planes in many cases are entirely obliterated by the peculiar type of earth sculpture that characterises the deposit.

Pegu series.—The main mass of the Pegu Yomas is built of rocks known as the Pegu series. These rocks were deposited in deeper waters and are consequently finer grained and more compact than the overlying Irrawadians. They are represented by a series of sandstones and shales occurring in all combinations and passing into each other laterally. Near their boundary with the younger rocks they are seen to dip under them, but away from the boundary the dips are undulating. Mostly the rocks have undergone much weathering, which makes it very difficult to separate the two series with a distinct boundary line. A more or less distinct boundary is

seen in the Sinthe *chaung*, about one mile south-east of Mezaligyin (20° 10′: 96° 30′) where arenaceous shales and sandstones of the older series lie conformably below the coarser sandstone of the younger. But at other places the boundary is not so sharp and is often very ambiguous.

The Pegus are folded into anticlines and synclines with the axes of folding lying in the direction of their strike, that is, north-north-west and south-south-east.

The topography of the country built up of Pegu rocks is rough and dissected owing to unequal weathering of the component materials, as compared with the flatter outlines of the country occupied by the softer, easily weatherable sediments of the Irrawadians.

(2) *Crystalline Rocks.*—The edge of the Shan Plateau east of the alluvial plain is composed of coarse grained, gneissose granite composed of quartz, biotite and felspar, the last named mineral generally altered to kaolin.

The granite as well as quartz-porphyry, which is of minor occurrence, are intruded into the slate-quartzite series. Veins of quartz intersect the granite and the older sedimentary rocks.

East of these rocks garnetiferous, crystalline limestones and a series consisting of slate and quartzite are known to occur, but the area has not yet been geologically surveyed.

una.

Wild animals are found along the Shan hills and in the jungles of the Yoma and adjacent uplands. In the eastern forests, however, most of the game has fallen to the guns and other weapons of the Karen villagers.

Elephant (*Elephas Indicus*) the Burmese *taw-sin* are not numerous. They are how ever, found occasionally in the reserves along the Magwe border and one or two herds appear to have their grazing grounds along the borders of the Yônbin and Palwe Reserves. Occasionally damage is done to crops in out-lying kwins. Licenses to shoot elephant are not now issued but from time to time it is found necessary to proscribe rogues and other elephants responsible for continual damage to crops and gardens.

Wild elephant being far from numerous it is an interesting fact that in 1930 a youthful student of the Rangoon University unlawfully arming himself with a borrowed rifle went in search of sport in the Yônbin Reserve and unexpectedly coming upon elephant fired two shots instantly killing two adult elephants. The young calf of one of these animals died later presumably owing to lack of sustenance.

A few herds of Bison (*Bos Gaurus*) the Burmese *pyaung* and of *Saing* (*Bos Sondaicus*) are to be found in the Yoma

jungles and the eastern foothills. Bison have been seen on the very summit of Byingyè where they go for water at the spring.

Sambhur (*Cervus Unicolor*) the Burmese *Sat* are found wherever there is jungle for them to lie up in.

Barking deer (*Cervulus Muntjac*) abound almost everywhere even close to villages and in spite of the large number of guns now available for their destruction.

Hog-deer (*Cervulus Porcinus*) the Burmese *Dayè* are found in the Paunglaung fodder reserves and have also been seen at places along the Sinthe *Chaung*.

Thamin (*Cervus Eldi*) are still found in the uplands of the Yamèthin Subdivision, especially in the Yanaung Township, but large herds and mature heads are things of the past owing to indiscriminate slaughter by "carted sportsmen."

Wild Boar (*Sus-Indicus*) the Burmese *Taw-wet* are common in every forest and along the borders of cultivation do much damage to growing crops.

Some tracks of Bear (*Ursus Malayensis*) the Burmese *Wet-wun* have been seen in the Palwe, Minbyin, Yeni and Ngalaik Reserves.

Serow (*Nemor Haedus Sumatrensis*) the Burmese *Tawseik* are found on Byingye and other hills of the Paunglaung Range.

Tiger (*Felis Tigris*) the Burmese *Kya* are found in all the reserves. Two were shot on successive days in December 1931 near Swedawmyaung and also two near Taungnyo in February 1932.

Leopard (*Felis Pardus*) the Burmese *Thit* or *Kya-thit* are common all through the uplands and forests. One was shot in 1930 right inside the Village of Inbu a mile north of Lèwe on the Trunk Road.

The Wild Dog, Burmese *taw-kwe* is fortunately not common and the jackal inaptly called by the Burmans *Kwe-a* or dumb dog is occasionally found in the Yamèthin Subdivision.

Civet (*Viverridae*) and Wild Cats (*Felidae*) the Burmese *taw-kyaung* are fairly common. Three species of cats are found—*Felis Torquata*, *Felis Chaus* and *Felis Bengalensis*.

The Burmese Leaf Monkey (*myauk-gwin-pyu*), the pig-tailed monkey (*Myauknyo*) and the common Burmese monkey are the most common of the monkey tribe.

The Hare, Burmese *yon*, is fairly common, especially in the uplands.

The Mongoose, Burmese *Mwe-ba*, has been seen near Shwemyo and no doubt exists elsewhere.

The Pangolin (*Thin-ngwe-gyat*), nocturnal and noiseless, one of the only two prehensile-tailed animals of the old world is common in the Yônbin and Chaungmagyi Reserves.

Snakes.

The greater part of the Yamèthin District is not unduly afflicted with poisonous snakes. But the wide sandy debris-strewn bed of the Sinthe and its dry northern bank above the railway bridge at Sinthe Station, westwards past Tatkôn and Myaukmyaik, is overrun with Russells' Vipers (*Vipera-Russelli*) the Burmese *Mwe-bwe* which are responsible for several deaths nearly every year. They are said not to cross to the southern side of the river. It is described * as "a very sluggish reptile that holds its ground in preference to escape. It has a very loud hiss which warns many of its proximity and anger and gives time to avoid being bitten. The bite is frequently fatal but probably about 40 per cent of casualties do not receive a lethal dose of venom. Grows to five feet. Buff or pale brown above with three series of large dark spots down the back. The belly is pearly white and is mottled with darkish semi-lunar spots."

The dry Yamèthin Subdivision is also a happy hunting ground for the Banded Krait (*Bungarus Fasciatus*) the Burmese *Ngandawgya*, *Nat-mwe* and *Ngan-than-kwin-sut*. This is described* as "an extremely sluggish snake that behaves as if it had been deeply drugged, rarely moving out of one's way and very rarely biting even on the greatest provocation. The Burmese say it is not poisonous but this is a mistake. Grows to six feet. Alternately banded with broad belts of bright yellow and black."

Both these snakes are very rare in the Pyinmana Subdivision where the moister climate is preferred by the Cobra and the Hamadryad which however are also found in the northern subdivision. A cobra was killed inside a house in the Pyinmana Civil Station in March 1932.

The cobra (*Naia Naia*), Burmese *Mwe-hauk*—" prefers escape to attack and therefore rarely bites unless suddenly encountered. The bite is frequently fatal but probably as many as 50 per cent of casualties escape a lethal dose. Grows to between five and six feet. Varying shades of brown above variegated or mottled with darker tones. A black ellipse or U with a central spot on the hood, or, more rarely, a spectacle mark. Belly dirty white or grey with darker mottlings and two to four dark cross-bars in forebody." *

The Hamadryad or King Cobra (*Naia Hannah*), the Burmese *Ngan* or *Ngan-bôk*, is a formidable snake on account of its size and the fact that it sometimes attacks with little or no provocation. The bite is usually fatal. Erects

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* Col. Wall, I.M.S., in the *Mandalay District Gazetteer*.

a "hood" like a cobra when alarmed. Frequently climbs trees and takes readily to water. Grows to fifteen feet. Olive brown to blackish above with more or less conspicuous lighter broad brands which become more indistinct as the snake ages."

The only other poisonous snake at all common is the Green Pit Viper (Trimeresurus Gramineus), the Burmese *Mwe-sein*, which is more commonly found in low hills and and green bamboo jungle where its colour affords a natural camouflage. For it is "a uniform grass green above, pale green, bluish or yellowish below and has a yellow or white line running along the flanks. The poison is never fatal to men".

Jungle fowl (*Gallus gallus ferrugineus*), Burmese *taw-kyet*, are moderately plentiful in parts, but at any rate in the Pyinmana Subdivision thoughtlessly neglect to inhabit many places most suitable for shooting them. Partridge (*Francolinus Chinensis*), Burmese *kha*, are common in the uplands where beans and other dry crops adjoin a convenient stretch of jungle. Peafowl (*Pavo Muticus*), Burmese *daung*, are not uncommon along the foot of the Shan Hills and in the western reserves. **Birds**

Several varieties of duck and teal (Burmese *tawbè, wunbè, kalagwet, sitsali*, etc.) are found on the Kyauksè Tank but they do not stay to nest and are seldom found in other parts of the district.

Snipe are found wherever there is marshy ground but nearly all migrate by the end of March.

The Silver Pheasant (*Gennaeus linneatus linneatus*), Burmese *yit*, are fairly common in the reserves but are not found elsewhere.

Green Pigeon (*Crocopus phoinicopterus veridifrons*), the Burmese *ngu*, are common but the Green Imperial Pigeon (*Muscaaivores aenea aenea*), the Burmese *hnget-nga-nwa*, called locally *gyo-nga-nwa* appear to occur only up the Môn *Chaung*.

Two varieties of quail, Burmese *Ngôn*, are found almost everwhere.

Golden Plover (*Pluvialis dominicus fulvus*), Burmese *ye-hnyaung-hnget*, are sometimes found on the wide open spaces along the Sinthe banks south-west of Tatkôn.

Birds of prey, birds of passage, carrion eaters; hard-billed and soft-billed birds; web-footed swimmers and long legged waders, game birds, birds of gaudy plumage, and birds of nocturnal habits—varieties of all such are found. Real songsters are uncommon but the jungle rings with the raucous voices of the gaudy minstrels. The Mandalay District

Gazetteer contains an exhaustive list of such birds and for further information reference may be made to that volume.

rflies The Yamèthin District as a whole cannot be considered a very good hunting ground for butterflies, but nevertheless to the collector who is willing to go to a certain amount of trouble and discomfort, it can yield a very considerable number of different species, some of which are rareties. Moreover, it is an area in which systematic collecting does not seem to have been done and therefore there are distinct possibilities of finding further new and interesting species.

From the collector's point of view, the district—like all Gaul—can be roughly divided into three parts, namely—

(*a*) The hills and foothills of the Pegu Yoma in the west;
(*b*) The central plains, varying from the dry zone thorn scrub of the north to the paddy fields of the south, and
(*c*) the hills bordering on the Shan States, in the west.

(*a*) *The hills and foothills of the Pegu Yoma.*—A list of "Butterflies of Tharrawaddy and the Pegu Yoma" by E.V. Ellis, I.F.S, is to be found in Volume XXV of the Bombay Natural History Society Journal. This list is not complete but is fairly comprehensive. Some of the malaysian or pseudo-malaysian species mentioned in the list do not, however, come as far north as the Yamèthin District. Probably the best collecting ground in this part of the district is in and around the evergreen forest of the Kaing Forest Reserve in Pyinmana Forest Division near the villages of Paunglaung and Mohnit. Below lis a list of the commoner species which can be taken in this area :—

Papilionidae—

Troides helena serberus. *Fd*
Troides acacus. *Fd*
*Tros aristolyochiae goniopettis *Roth*
*Papilio memnon agenor. *L*
Papilio helenus helenus. *L*
*Papilio polytes romulus. *Cr*
*Papilio demoleus malayanus. *Wall*
*Pathysa nomius swinhoei *M.*

Pieridae—

*Delias aglaia. *L*
*Appias lyncida hippoides. *M*
*Terias hecabe hecabe. *L*
Hebomoia glaucippe glaucippe. *L*
Ieias pyrene latifasciata. *But.*
Pareronia valeria hippia. *F*

Danaidae—

*Danais aglea melanoides. *M*
*Danais limniace mutina. *Fruh.*
*Danais plexippus. *L.*
*Danais chrysippus. *L*
Euploea mulciber mulciber. *Cr*
*Euploea godarti. *Lucas.*

Satyridae—

Mycaelesis mineus mineus. *L*
Lethe europa niladan. *Fruh*
*Melanitis leda ismene. *Cr*
Elymnias hypermnestra tinctoria. *M*

Amathusiidae—

Discophora tullia zal. *Wd*

Nymphalidae—

Charaxes polyxena hierax. *Fd.*
Charaxes polyxena agna. *M*
Charaxes fabius sulphureus. *Roth*
Eriboea athamas samantha. *M*
Apatura parisatis parisatis. *Wd*
Euthalia lepidea sthavara. *Fruh*
*Euthalia garuda garuda. *M*
Adolias dirtea jadeitina. *Fruh*
Parthenos sylvia gambrisius. *F*
*Liminitis procris procris. *Cr*
Pantoporia cama. *M*
Neptis hylas adara *M*
Neptis soma soma. *M*
Cyrestis thyodamas thyodamas, *Bdv.*
*Pseudergolis wedah. *Koll.*
Hypolimnas misippus. *L*
*Hypolimnas bolina. *L*
Yoma sabina vasuki. *Doh.*
Kallima inachus limborgi. *M*
*Precis hierta magna *Evans*
*Precis orithya ocyale. *Hub.*
*Precis lemonias lemonias. *L*
*Precis almana almana. L
*Precis atlites. *L*
*Precis iphita iphita. *Cr*
Symbrenthia hippochus khasiana. *M*
Issoria sinha sinha. *Koll.*
Cethosia biblis tesamena. *Fruh*
*Cethosia cyana. *Drury*

Erycinidæ.—

Zemeros flegyas indicus. *Fruh*
Abisara fylla. *Db.*

Lycaenidæ
Hesperiidæ

The identification of these being somewhat uncertain and difficult and the number of species being large, they are not included in the list. At a conservative estimate at least 50 different species or sub-species could be netted without much difficulty.

(*b*) *The central plains.*—There is very little of interest to be caught in this area as the species found differ very little, if at all, from those found in any similar area in Central Burma. Those species marked * in the list given under (*a*) above are also common in this area.

(*c*) *The hills bordering on the Shan States.*—This is by far the richest area in the District both in the interest and variety of the species to be found and moreover an area which has been only very lightly touched on by collectors. Mount Byingyè and the valley of the Lwègyi *chaung* are nearly as good hunting grounds as the well known grounds of Thandaung and Pathechaung in the neighbouring district of Toungoo. No lists seem to have been published for the area under discussion. Practically all the species mentioned in the list given under (*a*) above can be found here and in addition the following interesting species have been caught :—

Papiionidæ—

Chilasa clytia onpape. *M*
Pathysa antiphate pompilius. *F*
Zetides sarpedone sarpedon. L
Zetides doson oxion. *Fd*
Zetides bathycles chiron. *Wall*
Zetides agammemnon agammemnon. *L*
Paranticopsis macareus gyudes. *gord.*
Meandrusa gyas aribbas. *Fruh*
Teinopalpus imperialis imperatrix *DeN*
Leptocircus curlus. *F*
Leptocircus meges virescens. *Bul*

Pieridæ—

Leptosia nina nina. *F*
Delias hyparete hierte. *Hub*
Ixias pyrene meipona. *GrS*

Satyrdæ—

Mycalesis anaxioides. *Mar & DeN*
Elymnias cottonis obnubila *Mar & DeN*
Elymnias dara dædalion. *DeN*

Amathusiidæ—

Faunis arcesilaus. *F*
Stichopthalma louisa antonia. *Rôb.*
Thaumantis diores. *Db*
Thauria lathyi amplifascia. *Roth*
Thauria aliris pseudaliris. *But*

Nymphalidæ—

Eriboea schreiberi tisamenus. *Fruh*
Eriboea endamippus jamblichus. *Fruh*
Eriboca delphis. *Db*
Penthema darlisa. *M*
Adolias cyanipardus. *But*
Cirrochroa aoris aoris. *Db.*

There are probably some obvious omissions from the above list, which, however, is only intended as an indication of what can be found. The nomenclature is from the second edition (revised) of " The Identification of Indian Butterflies " by Brigadier W. H. Evans, C.S.I. C.I.E., D.S.O., etc. published by the Bombay Natural History Society.

There are many kinds of fish in the Sittang, the Irrigation Tanks and some of the other streams. The commonest are *ngamyin* or butter fish, *ngagyin* or mahseer, *ngabat*, or Fresh water shark, *ngaywe* or cat fish, *ngahlwa* or Indian trout, *ngathaing* or Rohita carp. Other varieties are :— **Fish.**

Nga-dan, *Nga-yan-gaungshe*, *Ngayan-ato*, *Nga-yan migwet*, *Nga-khu*, *Nga-gyi*, *Nga-pè*, *Nga-khônma* (resembling the climbing perch), *Nga-byet*, *Nga-zin-byu*, *Nga-thangyeik*, *Nga-monde*, *Nga-pyinthalet-kauk*, *Nga-muywe-udo*, *Nga-thalèdo* like whitebait, *Nga-aik*, *Nga-byema*, *Nga-zinyaing*, *Nga-taywet*, *Nga-panma*, *Nga-net-pya*, and *Nga-shin*.

The more important Forest Trees are mentioned in Chapter V. The Vegetation of the plains and uplands which occupy the remainder of the District is generally of the sparse, often thorny, tree scrub character sometimes called Thorn Forest. **Flora.**

Of the larger trees the finest is the Flame of the Forest (Paukpin) which in February and March makes such a glowing picture in the burnt and withered countryside and exceeds in fiery splendour even the lofty Cotton Tree—(*Letpan*) which with its scarlet flowers does so much to relieve the monotony of the plain. The Kapok or Silk cotton tree (*Thinbaw Letpan*) is being increasingly planted near villages. Along the main roads, round monasteries and in the streets of towns the Gold Mohur Tree (*Sein-ban-gyi*) adds a welcome touch of colour to the dusty drabness. The pink

or white blossoms of the famous frangi-panni (*Tayôk-saga*) form a favourite ornament in a maiden's hair on account of their delicate colour and subtle perfume. The pink blossoms are used also for medicinal purposes but are not very common. The long trumpet-shaped flowers of the *thakhut* or *Hingut-bin* which drop in numbers during the night carpet the ground beneath it with white. Other trees and shrubs whose blossoms in their seasons lend a pleasant variety of quiet or vivid colours to the landscape are the *ngu-bin* (Indian Laburnum or Purging Cassia) with its yellow tresses, *ngu-zat* with masses of pink flowers along the branches in April, *Pyinma*, or *Eik-hmwe-bin* the scent of whose blossoms makes man drowsy in the warm summer afternoons; *bambwe, kyi, kathit, yingut, yinma, egayit* (Indian Cork), *meze* (Illupei) *mahlwa*, the sown trees *gangaw, sagasein, sagawa*, and *tharaphi* and the climber *namane-than-lyet* which winds its slender graceful sprays about the hedgerows.

Magyi (Tamarind) and *kôkko* (Rain Tree), *htanaung*—(White-barked acacia) *tama* (neem) *nabè* and *mèzali* are the chief shade trees on village sites and road sides. There is very popular belief among the Burmese people that on the full moon day of Tazaungmôn, essence of medicine is collected on the leaves of *mèzali*. So, on this particular day, almost every Burman, rich and poor, makes it a point to eat the leaves of *mèzali* either in the *hingyo* or *to-za-ya*. Many a *Nyaungbin* (Pipal or Bo) with its far spreading-branches stands a landmark visible for miles with some small shrine beneath its shade.

Groves of Mango Trees (Thayet) are found east of Yamèthin between Kudo and Byingyat, near Lèwe, and a little west of Pyinmana, while smaller *topes* or single trees occur near and inside many villages. Of Palms the coconut (*ôn-bin*) flourishes in the Pyinmana Subdivision and from a distance gives the town of Pyinmana, Yezin and some other villages the appearance of a forest, but is now being sadly destroyed by the rhinoceros beetle. The Areca or betel nut palm (*Kun-thi-bin*) also occurs chiefly in the south. In the north the toddy palm (Htan-bin) is found in great numbers. An occasional *pe-bin* (Palmyra) lends an air to a village site. Other fruit trees are *ôkshit* (*Bael*), *pein-hnè* (Jack), *mayan* (marian), *awza* (custard apple), *malaka* (guava), *thinbaw* (papaya) and among wild fruits the ubiquitous *zibin* (Indian jujube); *zibyubin* whose bitter fruit is not everyone's choice *gwebin* (Hog Plum), *tè-bin* (persimmon), *thibin* (wood-apple) and *kanazoe* or Burmese grape.

The Tea plant (*letpet*) grows wild on the slopes of Byingyè and the mulberry (*Po-sa*) is found at the foot of the Shan

Hills. The Cutch-tree (*sha*) is found in much reduced numbers where it once formed great forests (see Chapter V). The wood of the *oknèbin* is chopped up and smoked in cheroots.

Other trees which occur more or less commonly are, *ma-u*, *thabye* much used for ritual purposes, *gyo* which is used for axles and harrow teeth, *pankha* which is used for axles and spokes, *gyok* which is used for handles and helves, *thitsein thitpayaung*, *lein*, *sit*, *thapan*, *kadet*, *mon*, *hpalan*, *zaunggyan*, *thitpôk*, *leza*, known vulgarly as *seikchi*, and the fuel trees *lein*, *than*, *thithpyu*, *thitya*, *dahat*, and *yindaik*.

The usual hedgerow plants are Cactus (*Tazaung-pyathat* and *tazaung-kya-sha*) the Castor Oil Plant (*Si-yo-kyet-su*, not the true castor oil plant *ricinus communsis* but *jatropha curcas*) *tazaungyi*, *kathit*, *kyasha*, *kanako*, *ayo*, *nan-lon-gyaing*, *sinbizat*, *hsu-le* and *sein-na-ban* or Lantana perhaps the most pernicious weed of all, with the climbers, *kywet-na-baung*, *kyi-ah*, *kinmôn*, *ywe*, *hle-san-nwè*, *tawbe*, *gin-bok-kaung-laung*, *gin-bok*, *kya-hin* (moon flower) and *kwe-le* whose touch causes the most intense irritation.

In the open the more common thorny plants are *khaya* (Mexican or prickly poppy), *hinnunwe* (a sort of wild spinach) and *hin-nunwè-subauk* (prickly amaranth) *supadaung*, *myebok-kayan*, *kinmungyin subôk*, *suyit*, *monan*, and *gyamani-su*, so called because it was first noticed in this province during the war against Germany.

Unarmed plants are the green Burrweed called both *sathwabin* and *katsinè* (the latter name being given also to many other adhesive plants), *myu* (goosefoot), *hingala*, (wild, mustard) *nga-yan-padu*, *dangywè*, *meyaung*, *gyat*, *kadu*, *kyetmauk* (prickly chaff flower or love lies bleeding) *mayo*, *tauktè-letwa* (tiger foot), *pilaw* (jute), *pikesan* (Indian hemp), *bauk*, *ye-chinya*, *than-that*, *tigayon* (sensitive plant) *pwinbyu* which causes much harm to millet crops, *kyettet*, *tazaungkha hnokgyo*, *kalapaw*, *padatsa*, *boktaung*, *ye-si-byu*, *wa-sa* or *yo-byu*, *kwe-mi-bok*, *padaing*, *se-kalôn* (tiger's claw), *wet-chut*, *hingyo-na-daung*, *nwa-sa-ngok*, *chinbatmwesok*, *kyet-ma-ok*, *thidin-yaing*, *kayinma-pan-bu*, *aung-mè*, *sinlamaung*, *petya*, *padibyu*, *kyaungban*, *myetsina*, *bonbayaza*, *yethagyi*, *kyaungse* and the climbers *pan-kazun-nwè* (morning glory), *namane-than lyet* and *kalamyetsi* (balloon vine or heart pea).

Nyan-bin on marshy ground forms a dense jungle which looks in the distance like a crop of *pèsinngon* and *beda-bin* (water hyacinth) blocks up the *yos* and stagnant pools. Other common aquatic plants are *kya* (water lily), *hmo-na-do* and *ye-kazun*.

The more important grasses are *thetkè* used for thatching, *kaing*, good for elephants and buffaloes especially when young and tender, *padaw*, *mye-sa-myet* or doob grass, good for horses, *mohnyin*, a sedge very troublesome in cultivated land, *wayon*, *zein*, *wunbèsa*, *myetkha*, *sin-ngo naya*, *myet-swe-lè*, *myet-chein*, *myet-mwe-zok*, the spear grasses *myauk-mya*, *myet-hlan* and *myauk-mi* ; *yongale* or *yonhle* and *thamin-mwe* in the dry zone : *wetla*, and *wetmye* in the marshes.

CHAPTER II.

HISTORY.

rces.

Little is known definitely of the early history of the Yamèthin District. Only meagre references are made in the Glass Palace Chronicle and the *Konbaungzet*, while Harvey makes a bare dozen passing allusions to it. When history is silent legend sometimes affords an interesting glimpse of the general march of events. Much of this chapter therefore will be found to consist of legends mainly collected by one Maung Bo Htaik of Pyinmana and recorded in various parts of the Upper Burma Gazetteer. The dates given are often quite impossible and no attempt has been made to reconcile them. But in spite of vagueness and obvious inaccuracies and impossibilities these legends do help to give a general idea of the position of the Yamèthin District at various times in Burmese history.

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nèthin

According to legend the town of Yamèthin was founded in 666BE. (1304 A.D.) by Kyawswa Min the last of the Kings of Anawrata's dynasty who ruled as chief in Pagan after its sack by the Tartars of Kublai Khan. The date must be incorrect for Kyawswa Min who come to the throne in 1286 A.D. was deposed and put to death by Yazathingyan in 1298 A.D. One account says that it was founded on the site of a large pigs wallow but no reason is given why a site of this nature should be chosen. In another account the original name is given as *Nwa-mè-ta-thin* meaning a herd of black bullocks as such animals were said to have been found on the site. Others however attribute the name to the colour of the water. For the soil being largely impregnated with nitre and other mineral substances gives the water a darkish colour whence the name *Yamèthin* or "tract of black water."

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na.

The name Pyinmana has a similar "Diversions of Purley" etymology. King Kayinba of Toungoo (died 1485) before he came to the throne had worked as a cultivator in the fields

near Kelingon, a village north of Toungoo. There he loved a maiden name Byima like his own daughter. When he became King he raised Byima to the rank of princess. But Byima had worked in the fields too and she thought it better to run away with a peasant lover than to stay in the Palace. When she eloped she took with her a gold betel-box, set with rubies, and a very valuable ruby ring which belonged to King Kayinba. She was pursued and overtaken on a rising ground near Gyin-lo village in Kyaukchit, where she had halted in her flight. Byima was taken back, the King forgave her for the love that he bore her and made her a princess again, and the place where she was captured was called Byima-na (the place where Byima stopped) and this modern tongues choose to pronounce *Pyinmana.*

When King Asoka summoned all the Kings in his dominions to receive religious relics eighty four thousand of them came, of whom the ruler of Wanwègon (Lèwe) was one. The relics he received were the brains of the Buddha Gaudama and they were enshrined in the Shwelethla pagoda near Wanwègon at a place where the Buddha himself is said to have grazed in the form of a buck deer. Some 20 odd miles away at Taungnyo the Gaudapalin pagoda founded by Asoka marks the spot where the Buddha once sat upon a throne. Wanwègon itself is said to have been named after its founder, Maung Nwè, who built it on the plans of the minister Nanda Kyawzwa, one hundred *tas* from east to west and eighty from north to south, with a wall ten cubits high and a moat outside. The town was called Nwègon at first, and later changed to Wanwègon. Asoka

It is related also that King Asoka dreamt that he saw an emerald alms bowl in a fine banian tree near Wanwègon. He sent messengers who found the *thabeik* and in accordance with their orders presented it to the Shwelethla pagoda. King Asoka then ordered a city to be founded called *Myathabeikmyo* (the emerald begging bowl town) afterwards changed into Kuthabeik by which name it is still called.

The same monarch is said to have given orders for the founding of Minbyin under the name of Minginmyo and of Yanaungmyin under the name of Naungpyin. As far as history is concerned Minbyin is only known to have been under a *myothugyi* from the time of Alaungpaya and has always been known as Minbyin. Neither Kuthabeik nor Naungpyin seem to have flourished though they were both included in the list of the 52 walled cities of Toungoo in 1485. The fate of Kuthabeik is not known but it was probably destroyed at the same time as Naungpyin when Toungoo city fell (1610) and Nat Shin Naung was captured

by Thiri-dhamma Yaza. The Shwelethla pagoda is situated in the present Yanaungmyin village-tract.

9th Century. When the ancient city of Prome fell shortly after 800 A.D. the people fled in three directions in their fear of Nga-Sagaw. The Burmans fled north and founded Pagan. The Pyus and Kanyans (Arakanese) though they kept separate went east. They afterwards fought with each other, and the Pyus, being victorious, settled in the Taungnyo valley with many of the subject Kanyans and repeopled the country. Among the villages that they founded were Mayangôn, Myetyè, Thapanchaung and Thanbayagôn, the first quite near Taungnyo the others further north between the Nat-Taung and the Sinthe river. Nyaunglun in the Yamèthin Subdivision was also an important Pyu settlement. In the south of the Taungnyo valley Pyus are still called by that name in Kainggale village.

The present village of Taungnyo is situated close to the site of an ancient city called Nandawpawmyo which was founded by a King called Gawunpade in 827. He was very powerful and under him was an official called Pappada Yit Ka Kyawgaung (the first portion of his title seems to show that he was a Karen or at any rate a Hillman) who founded a number of villages along the Ngalaik stream. The city flourished exceedingly and Gawunpade—apparently a Burmese Methusaleh—lived on until 1311. His son Minhla Yaza committed the crime of Oedipus which resulted in the hill near Nandawpaw swallowing up that capital and all its tributary villages and inhabitants with the single exception of Minhla Yaza himself. The spot was afterwards known as the Taungmyo (Hill town) which time has changed to Taungnyo. A fuller and rather different version of this story is given among the Minor articles in Chapter XIV.

11th Century. The present Yamethin District was included in the principality of Anawrata (1044—1077), "a small area which remained till the end the homeland of the kings of his dynasty where their writ always ran." (Harvey). Anawrata had received homage from several of the nearer Shan chiefs but their allegiance was nominal and he had to establish forty-three outposts along the eastern foothills including Hlaingdet, Thagaya and Nyaungyan now included in Meiktila but once part of Yamèthin, and Shwemyo. According to one account he was the actual founder of Yamèthin town.

12th Century. Alaungsithu (1112-1167) when he became king set out on a barge made of *thinganit* wood to worship at the Shwelethla pagoda in Wanwègon. He repaired it and enlarged it to a height of thirty-six cubits and set up four boundary

pillars, besides digging a tank. The land assigned to the pagoda extended in all directions, north, south, east and west, as far as an elephant could be heard to trumpet. Any one who cultivated land within these limits had to pay fifteen baskets of paddy, which were sold and the proceeds used for the advantage and behoof of the pagoda and of the monks who lived near it. King Alaungsithu, when at the Shwelethla pagoda asked who was in charge of Wanwègon and was told that it was a man named Maung Shwe Hnyin, and sent his minister Nandathuriya to summon him. Shwe Hnyin said he was subordinate to nobody and that none of the *myothugyis*, his predecessors, had received orders from any one for a great number of years. He therefore refused to come. The minister insisted so Shwe Hnyin tied a stone round his neck and committed suicide in the Wanwègon moat. Alaungsithu went to Wanwègon on his barge and commanded the corpse of Shwe Hnyin to rise! the corpse rose with the stone round its neck. Alaungsithu divided it into three portions, but when he wanted to go on his barge it would not move. It was then discovered that Shwe Hnyin had become a *natsein* and would not permit the barge to move until he was assigned a place to live in. King Alaungsithu accordingly built him a spirit palace and assigned him a spacious territory, extending round about it for several thousand *tas* on every side. The barge was then freed and the King built two pagodas at Wanwègon, one the Paung Daw U and the other the Paung Daw Chi, to commemorate the incident, and Shwe Hnyin's descendants were put in charge of Wanwègon.

14th Century.

In the year 728 B.E. (1366 A.D.) Mintin Sithu, Maung Po Maung, a grandson of Thamoddarit Min, established a city in the Taungnyo neighbourhood and called it Myataungmyo. King Thawun-ngè of Toungoo heard that there were elephants in the neighbouring forests, some of them white, some coloured. So he came up to Myataungmyo and ordered Mintin Sithu, Maung Po Maung, to point out the white and coloured elephants. He could not; so Thawun-ngè had him taken to the top of the hill and put to death. Maung Po Maung became a *natsein*, a malignant spirit, and has haunted the hill ever since and it is called "Posaung" Taung after him.

Not far from it is the Kyetsa forest. When King Thawun-ngè was on his way back to Toungoo, the golden cock that he kept as a time-piece to announce the hours by his crowing escaped into the jungle. He was searched for in vain and when they give him up as finally lost, the king

declared that part of the jungle to be devoted to the golden cock under the name of "Kyet-sa-myo."

The site of the old city is still recognizable at Thabyegon in the Kyetpye village-tract on the road to Taungnyo.

It is towards the end of this century that we find the first references to Yamèthin in the Glass Palace Chronicle. In 1393 the Sawbwa of Mohnyin in Katha District carried his raiding right up to Sagaing where his Shans burnt the houses and monasteries outside the walls until Thilawa, Myosa of Yamèthin, came up and broke them. Thilawa was the brother-in-law of the King Minkyiswasawkè (1368-1401). "He was a great character and had refused the crown in 1368 saying 'I do not open my mouth to speak three words a day. You had better choose Minkyiswasawkè'." He laughed only thrice in his life, one occasion being at Yamèthin when his wife interrupted a cock fight he was watching to tell him that the Shans were rushing the town; she was so dishevelled that even he smiled; but he finished the cock fight before driving off the Shans." (Harvey). Thilawa died in 1395 and his brother Mahabyauk succeeded him as Myosa of Yamèthin.

15th Century. Yindaw was then a separate charge and in 1402 Minmaha was appointed Myosa by Minkhaung (1401-22) and later on the death of Mahabyauk the same King appointed Pauk Hla as Myosa of Yamèthin with fifty elephants. He was succeeded by Sithu who was there in 1428. Mohnyinthado (1427-40) spent most of his reign trying to maintain his throne. Yamèthin and other towns "under princes of much the same standing as himself went their own way and treated him as at best a senior. When he tried to reduce these towns he found some of them defended by Shans, possibily recent immigrants, Onbaung (Hsipaw) and Yawnghwe made common cause with them." (Harvey). In 1433 the Mohnyin Sawbwa actually sent his son against Yamèthin but he was unsuccessful. Mohnyinthado's son, Narapati (1443-69) defied the Yunnan Government and held his own for a time but when in 1446 the Chinese appeared in strength before Ava he yielded.

Before they returned to their own country the Chinese assisted him in reducing Yamèthin which was then in rebellion. During the reigns of Narapati's son Thihathura (1469-81) and grandson Minkhaung (1481-1502) the country was a medley of rebellion. Sithukyawhtin of Toungoo, the chief supporter of these kings tried his best "but he could do nothing in face of the increasing uproar and died a captive in the hands of Yamèthin and Kyauksè whose revolt he had tried to quell" (Harvey). Minkhaung was succeeded by his

son Shwenan-kyawshin (1502-1527). In the first year of his reign an attempt was made on his life by order of his kinsman Nawrahta of Yamèthin. The attempt failed and Nawrahta was caught and drowned. He merges with Anawrahtaminsaw as the Shwenawrahta *nat* (spirit).

Mingyi-nyo, 1486-1531.

In 1486 Minkyinyo, more commonly called Mingyinyo, assassinated his uncle the Governor of Toungoo, seized the Governorship and established himself as a powerful and virtually independent ruler though still nominally vassal to Ava. He took the title of Maha-thiri-zeyathura. The country had been much ravaged before his accession and he built a new capital at the point where the Kabaung river enters the Paunglaung. This was finished in 1491 and was named Dwayawadi. But in 1510 he founded another new capital called Ketumati which is the present Toungoo.

With the establishment of a rich and powerful monarch in a populous and wealthy capital so close at hand a period of active colonization and development opened for the Yamèthin District, and especially for the southern portion of it. Several of the Fifty-two Walled Cities of Mingyinyo's kingdom were situated in the Yamèthin District. "In 1503 he received from the King of Ava the present of a daughter and the coveted canal area of Kyauksè together with all the country leading up to it from Toungoo such as the Yamèthin villages of Taungnyo, Pyagaung (Kyidaunggan), Shwemyo, Kintha, Talaingthe and Petpaing. He deported the population of these to fill his new town of Dwayawadi." (Harvey). But in order to protect his capital he established nine strong posts to the north of it at Swa, Myohla, Pyinmana, Kyaukchit, Ngasingin, Shwemyo, Talaingthe, Nyaunglun and Myadaung (Upper Burma Gazetteer).

The following legend of Kyaukchit which is now called Kyaukchet is given in the Upper Burma Gazetteer. Kin-ywa Kyaukchit (Kyaukchit guard-village) was situated to the north of the Ngalaik stream, three hundred *tas* from it, and it was at first called the Kyitthongon *kin*, but the name was changed in 856 B.E. (1494 A.D.) because when the king was on his way to Panya one of his elephants, Shwe-kye, lay down on the ground and refused to eat or get up again. Consultation with the learned men revealed the fact that a banian tree in which a nat called *Nyaungsaungnat* lived had been lopped of its branches for the elephants. Offerings were made to the banian dweller nat, but he refused to be appeased until a young woman, Ma Min Byu, came and made offerings. The *Nyaungsaungnat* then signified that he was satisfied, by allowing the elephant Shwe-kye to get on its legs again. King Mahathiri-zeya-thura was so much

pleased that he gave the *natwin*, Ma Min Byu, a scarf wrought in gold, such as was worn by the Northern Queen, a ruby ring weighing two ticals, and the title of Myatasaung, with the right to enjoy the taxes and emoluments of the Kyithon-bon tract. It was afterwards discovered that the rubies in the ring were imitation stones, so the name of the circle was changed to Kyaukchit (spurious stones).

King Mahathiri-zeya-thura assigned the following limits to Kyaukchit Kindaw ; to the east, one thousand *tas* as far as the Sinthe river at Kamawa *seik* and the Môkso Nyaungbin, adjoining the Taungwin Circle ; to the west, three thousand *tas* as far as the Ngalaik stream at Ziwa-myete-seik as far as Lema Chit-tha Circle ; to the north, two thousand and five hundred *tas* as far as the Kyaukpon-Kyauktan foot-path, touching the Pyagaung Letha Circle ; to the south, two thousand *tas* as far as Natkaungkan, bordering on the Wetkabu Circle ; to the north-east, one thousand *tas* to the Sinthe Okyedwin, bordering on Shwebe Circle ; to the north-west, three thousand *tas* as far as Se-Kyetebin-gon, Ngaye Thit-ngôk, bordering with Pyagaung Letha Circle ; to the south-east, three thousand and five hundred *tas* as far as Thanthe-kayin Shwe In Oklok Myaung, bordering with Ela Circle ; to the south-west two thousand and five hundred *tas* as far as the Kyagu stream, Taungdi Kyabinin, next to Yanaungmyin Circle. The king then appointed one Thit Tin to be Thugyi. There were one hundred houses at the guard station, but otherwise the district was thinly inhabited.

It is said also that in the year 1570 a Karen named Le E, with one hundred Karen households from the western Karenni States of Ngwedaung and Nyaung-pa-lè obtained permission from Maha-thiri-zeyathura of Toungoo to found a village on the eastern bank of the Paunglaung river, to the south of Pyinmana. Le E was appointed *Ngwe-kun-hmu*, and his first village was called Ela. Not long after the settlement, however, a Burman Maung Aung, cheated Le E out of a considerable amount of property, and the name of village was changed to Nga-aung-lein. Nevertheless the place prospered, and in 885 B.E. (1523) had three hundred and fifty houses, and Le E's eldest son had in addition settled the new village of Pinthaung to the east. Thereupon the King gave Le E the title of Letya Thama-ye Bonba Kyawzwa, created the place a town, ordered it to be fortified, and assigned a sum of Rs. 20,000 for the purpose. The city wall was 800 *tas* square, eight cubits high, and six cubits thick, and it was finished within a year, but it had barely been built when there was a great famine and consequently

an outbreak of dacoits, who attacked Nga-aung-lein-myo. The people then all fled back to Ngwedaung, and the spot has since been deserted. Some of the other villages, however, remained and one of these was on the Sindaung, near the Pinthaung stream. This was a walled place fifty-five *tas* square, in the centre of which was a stone slab with the name Pyusawdi, which gave its name to the place.

Le E's sister Ma Wit Pu is said to have founded Wekkabu near Ela in 1513. The first settlement was called Wit Pu but this name was gradually changed to Wekkabu. The inhabitants were chiefly Naungpalè and Ngwedaung Karens sent by Le E the Ngwe-kun-hmu. Mingyinyo made it a walled town, with walls 400 *tas* long on two sides and 300 *tas* long on the others. The city was deserted in 1688 but re-established in 1783 by Maung Shwe Myat under orders from King Bodawpaya.

In this reign too under the orders of Mingyinyo were founded Ye-E (1510) on the Sinthe north-west of Shwemyo, Aungtha (1486) now in the Yeni Forest Reserve, Taungwin (1510) near Thawatti, and Sinthewa (1526). The last two were included in the sixteen Karen villages of the fifty-two cities of Toungoo. None of them, however, seem to have flourished and they were deserted when Toungoo fell early in the next century.

Wanwègon was still held by a descendent of Shwe Hnyin according to Alaung-Sithu's orders and now under orders from Mingyinyo he raised for the king nine battalions of infantry and sixteen squadrons of cavalry. These cavalry squadrons were called :—

Sundaung-Myin.	Yanaung-Myin.
Zeya-ywada-Myin.	Migè-hman-Myin.
Suna-Myin.	Yontha-Myin.
Letwè-midaik-Myin.	Letwè-koso-Myin.
Yesaw-Myin.	Yan-naing-Myin.
Letwè-Myin.	Kanthayi-Myin.
Nat-Myin.	Wanwègon-Myin.
Letya-midaik-Myin.	Tasaung-Myin.

Shwe Hnyin had a beautiful daughter—or at least descendant, and in 1514 when Mingyinyo visited the Thagaya tank which had burst its embankment, he passed through Wanwègon and came across the girl, saw that she had the five signs of perfection * and took her back with him to Toungoo. There she had a dream that the sun entered her womb, which she told to the king.

* Namely good eyes, good teeth, good hair, good figure and good ancestry.

He said that if she bore a son after that, he would make her one of his Queens. She did bear a son, who, besides being singular in being born with a single hair, "the colour of red brass," on his head, came into the world in the middle of a violent thunderstorm. He was called Tabin-Shweti, on account of his solitary red hair, and his mother was made a queen with the title of Yaza-dewi.

Harvey however prosaically states that Tabin-Shweti was the son of Mingyinyo by the daughter of the thugyi of Penwè-gon six miles north of Toungoo and also gives a different origin for the name. "When he heard the news of the Shans' first entry into Ava in 1525, Mingyinyo went north to see what he could get, but had to return because its own lord Shwenankyawshin regained his city and in retaliation came raiding as far as Toungoo. When the Shans finally took Ava in 1527 he marked out and deliberately devastated the country in the central zone, filling in the wells and breaking down the channels in the hope of making an impassable belt between himself and the Shan terror (Harvey). He also founded a strong fortress at Pyagaung now Kyidaunggan to guard the approach to his capital. The Upper Burma Gazetter gives the story as follows.

There was an ancient prophecy that when the Burmese era reached three eights, that is to say in the year eight hundred and eighty-eight (1526 A.D.) the city of Ava would fall before the Shans. Accordingly in that year there was war between Shwenan Kyawshin and Zalon Thohanbwa, the King of Mo-hnyin. Thohanbwa killed the King of Ava in battle and took his kingdom. When he heard this Mahathiri Zeyathura, the King of Toungoo, marched north from Toungoo with a large army and when he had gone a distance of thirty six thousand *tas*, he halted his forces. There he had a dream in which the *Nyaungsaung nat* appeared to him and told him that the kingdom of Toungoo would remain unharmed for three reigns, that of Mahathiri Zeyathu, his son and his grandson, and that there was no cause for alarm.

The King was much pleased, but in order to make everything secure he founded a town on the spot and called it Pyagaung (a good sign shown). The town was defended by a wall fifty *tas* square and a rampart ten cubits high and five thick, and it was finished in six months' time. Then Aungni-hmu Nemyo Mintin-thurein, one of his officials, was put in charge of it and ordered to resist the advance of any hostile force. Pyagaung however only lasted for 50 years when it was abandoned.

Sixteenth and Seventeenth centuries

With the removal of the capital to Pegu by Tabin Shweti and the fall and sack of Toungoo early in the 17th century the prosperity of the district rapidly declined. Most of Mingyinyo's foundations and even old Settlements like Wanwègon, Kuthabeik and Naungpyin were abandoned and remained deserted till the restoration of prosperity under the Alaungpaya dynasty. In 1555 Bayinnaung in his advance on Ava sent half his army up the Sittang valley to Yamèthin from where they marched eastwards on the capital. In 1608, under orders of Sinbyushin Mintaya of Toungoo, Kyidaung was founded by a Karen named Than Gauk who brought one hundred households from Ngwedaung Naungpale in western Karenni. Than Gauk received the title of *Ahum Ponnya Sekka* and his method of increasing the size of Kyidaung was to attack the neighbouring villages, burn them and carry off the inhabitants to his own Settlement. The Glass Palace Chronicle mentions that owing the oppression of Ngadatdayaka (1646-61) Min Thissa seized Yamèthin, Wadi, Yindaw and Hlaingdet. Thereafter all is silence for more than a hundred years.

Alaungpaya, 1752-60.

With Alaungpaya the district reappears in History. Asoka's settlement at Naungpyin had been destroyed at the same time as Toungoo in the early 17th century and remained deserted until the time of Alaungpaya when the Peguans who happened to be on the spot resisted the recolonization. They were easily driven out and the village was re-established with the name of Yanaungmyin in commemoration of this victory. During this reign the recolonization of the district began. Aungtha was recolonized by thirty households of Yabein silk-worm breeders; Chaunggwa and other old settlements were re-established and new villages such as Taungpulu were founded. Wanwègon was re-settled in 1752 by a Talaing named Sittat Welu, who soon gathered 200 households round him. In 1758 a man named Maung Twa obtained permission from Alaungpaya to restore the old towns and villages which had been deserted for years. There was an old city (one of Anawrata's forts) with walls fifty *tas* square to the west of the present Shwemyo, and Maung Twa settled here first and called the place Si-gyi-swè myo, because there were hives of bees hung on the city walls. The country was, however, very dry and the people soon moved, owing to the deficient rainfall, to the present Shwemyo, which was settled in 1778 and has been kept up ever since.

It has been mentioned that Mingyinyo when he established Kyaukchit at the end of the 15th century appointed one Thit-Tin to be thugyi. His descendants succeeded one

another in regular order in charge of Kyaukchit which outlasted the Toungoo dynasty and prospered greatly.

Finally when Alaungpaya overthrew Pegu and seized the Talaing *Thon-yat*, Nga Ngon a descendant of Thit-Tin obtained from him formal letters of appointment as *thugyi* and when he died his son, Tha Dun Aung succeeded him in the reign of Hsinbyushin (1763-76). So matters went on till the time of Padon Myosagyi (King Bodaw) who, when he transferred his capital from Ava to Amarapura, put his son in charge of Toungoo and his daughter in charge of Yamèthin. The son began a rebellion and Bodaw-paya came down with an army to put an end to it; when he reached Kyaukchit he made enquiries as to boundaries, and was told by the *Myedaing Amat* that the Toungoo District extended as far as the Kyeni *kan*, the tank at Yamèthin town. Upon this the King said that Toungoo, in charge of his son, was too big and Yamèthin in charge of his daughter, was too small, and he fixed upon the Ngalaik stream as the boundary between the two districts. This was in 1163 B.E. (1801) and a result of the re-arrangement was that many of the Kyaukchit villagers moved south of the Nga-laik.

In the course of this journey Bodaw-paya had travelled through thick forest and had not seen the sun for many days when near Kyaukchit he came to an open space filled with a wide sheet of water which he thereupon called *Ne-yaung-pya-in* or the place " where the sun showed itself ". Not far from here one of the King's elephants called "Zawana" fell sick. A local doctor named San Bu succeeded in curing it and was rewarded with a fee of five ticals of gold. The village has therefore been called Shwe-be ever since. During this tour the King founded pagodas at Nyaungyan, Wadi, Baddi, Myohla and Inbin.

Bodawpaya continued the policy of recolonization begun by his father. Gwegyi and many other villages were founded. The Koywa circle was formed. Wekkabu which had been deserted a century earlier was re-established by one Maung Shwe Myat under orders from the King. Sittat Welu who had re-settled Wanwègon was appointed a Myothugyi by Bodaw in 1783 and encouraged to establish other villages.

Among these was Lèwe, founded in 1788, and so called because it was very far from the paddy fields. It prospered notwithstanding and eventually superseded Wanwègon, and is now a township headquarters. Wanwègon is now an unimportant village called Myogon. The Konbaungzet mentions that in 1795 Bodawpaya turned out five regiments from Yamèthin to work on repairs to the Meiktila Tank.

The last fifty year of Burmese rule.

The colonization of the district proceeded steadily right down to the end of the Burmese monarchy. In the time of the Sagaing King, Toungoo was put under a Myowun and about the same time Tha Dok Gyi, a dacoit Bo, came and settled with fifty households in the Kyaukchit circle south of the Ngalaik. The breadth of that stream was ten cubits and Tha Dok Gyi built a culvert, or *ningyan-ku-tada*, over it, so that people could walk over and hence the new village was called Ningyan. This was in 1194 B.E. (1832) and the village of Ningyan increased very rapidly in size, so much so that Tha Dok Gyi was appointed thugyi of Ningyan Kyaukchit by the Toungoo Myowun. In the same year the village of Thetnge-gyin, five hundred *tas* west of Ningyan, was established by one Maung Shwe Bya, and within the year another village, Gonminin, was established west of this about five hundred *tas* by Maung Cheik Gyi, while Yaukthwa-in was built two hundred and fifty *tas* off to the south. All these villages still exist and many more were settled about the same time, among them being the large village of Seiknandon. Altogether Tha Dok Gyi, though he was a stranger, and a man apparently with not a very good reputation in the past, seems to have been a person of great energy and to have attracted great numbers of new settlers and when Shwebo Min became King, he was appointed Myothugyi of Kyaukchit, Pyinmana and Wekkabu circles. Soon after he dammed up the Ngalaik stream south of Seiknandon village for irrigation purposes and greatly increased the area available for rice cultivation.

Tha Dok Gyi died in 1208 B.E. (1846), in the same year as Shwebo Min, and was succeeded by his son Maung E Maung, during whose time also there was a great increase of population.

After the Second Burmese War which happened in his time, 12 circles included in the 52 cities of Toungoo did not pass with that place to Great Britain but remained under the King of Burma. For this reason they were called the *Toungoo-nègyan-sè-hnitmyo*. These 12 circles were Taungnyo, Lèma, Yanaungmyin, Wanwègon (Lèwe), Minbyin, Chaunggwa, Wekkabu, Taungwin, Zeyathein (Ela), Ningyan (Pyinmana), Kyaukchit and Kyidaung.

Another result of the Second Burmese War was the rebellion and seizure of the throne by Mindôn Min. In his reign the district was for the last time before the annexation troubled by civil war when in 1866 Maung Meik raised the Shwepyi Yanaung district in support of the rebel Myingun prince and burnt everything from Theingon northwards.

But before this Mindôn Min had been turning his attention to the district and in 1858 appointed the Malun Myosa, Maha Mingaung Thitthatha, with the title of Kalawun, to take charge of all the southern frontier districts, and immediately afterwards the working of the Pyinmana teak forests for the export of timber was begun. The first result of this was that the irrigation embankment on the Ngalaik stream was breached by the accumulation of teak logs and much land was thrown out of cultivation, but in 1861 Maung E Maung built another dam at Beikpeinbaung, some distance lower down, which partly made up for the loss.

Maung E Maung died in 1871 and was succeeded by his son Maung Ya Baing, who, however, in 1873 lost the Wekkabu circle, which by Royal Order was given to Sein Bon, with the title of Myothugyi. Maung Ya Baing retained charge of the Pyinmana myothugyiship after the Annexation until the year 1890, when he died.

Meanwhile Thawatti had been founded in 1836 by Thirty of the Zanitpala *ahmudan* not far from the old settlement of Taungwin. In 1841 settlers from Thazi in Yamèthin founded Ywagauk on the outskirts of Pyinmana town. The village was generally known as Thazi until after the annexation. In 1848 Shwebe was re-established. A few of Le E's settlements near the original Ela remained, but the circle did not really prosper until about 1860 when a number of villages were settled by order of the King. Among them Maung Tha Shwè established one called E-hla-thi because it was shady and cool. This is the present Ela. Other villages founded nearby at this period were Aunggon, Sainggaungyo, Natthayè, Pyiwin and others.

Ye-E was restored in 1873 and in 1883 one Maung Maung with the title of the Myothugyi was ordered to re-establish the old city of Pyagaung. He soon gathered 100 households round him and the new town was called Kyidaunggan. A number of other villages were also established during this period in all parts especially in the Pyinmana Subdivision but many of them were deserted or reduced in size during the disturbances which followed the annexation though many have since been restored.

Annexation. The main body of British troops advanced up the Irrawaddy in steamers. But on the fall of Minhla, General Prendergast ordered that a moveable column should be prepared at Toungoo and the road to the frontier improved. This column left Toungoo on the 24th November 1885 under Colonel Dicken and encountering only a slight resistance at Ela on the 30th, entered Ningyan on the 3rd December. Meanwhile General Prendergast had entered

Mandalay and made arrangements for the Ningyan campaign. Through the Hlut-daw he ordered the Burmese Commander to retire and on the 9th December, General Shwe Lan Bo handed over his sword at Mandalay. A column was also ordered to march south from Mandalay to join the Ningyan column and a third column was detailed from Thayetmyo to join the others while Colonel Dicken was ordered (by telegram *via* Rangoon and Toungoo) to reconnoitre and if possible to seize Yamèthin. The Mandalay column, however, was held up and the Royal Scots Fusiliers under Major Law who took Taungdwingyi on the 2nd December could get no further. Villages near Pyinmana were, however, early occupied and at the end of 1885 the district was believed to be rapidly settling down. Several local men of influence such as Maung Bo who was made *myothugyi* of Ywagauk, Maung Lu Gale then clerk to the Thitkyeik *wun* and now *myothugyi* of Yezin and Maung Pu Le the clerk to the Ningyan *wun* and later A.T.M. and Township Officer of Lèwe, assisted in the work of pacification and administration ; but many of the local officers did not submit and *myo-ôks* from Lower Burma were brought in to fill many of the posts and these officers raised and trained local police.

But this peacefulness was only the deceitful quiet of indecision. Early in January 1886 the country towards the north began to be disturbed by the Ningyan *Lè-wun* and the Theingon *thugyi* and their counsels eventually prevailed.

Disorders and dacoities increased although Yamèthin was occupied by a force from Pyinmana after some opposition on the 18th February 1886. The Yamèthin District was then constituted as a separate unit. In March, General Prendergast himself took a reinforcement of four mountain battery guns and two Companies of Bombay Grenadiers to Ningyan and Yamèthin but as the dacoits refused battle he returned to Toungoo on the 24th March. The situation rapidly grew worse and towards the end of April large bands of dacoits had gathered together and soon controlled all the country except in the neighbourhood of our posts. The chief leaders were the adventurers and pretended princes Buddha and Thiha Yaza, the Kyimyindaing *soi-disant* prince, the *Lè-wun*, the Theingon *thugyi*, and, mainly in the north, the Myinzaing prince's leaders U Paung and Maung Gyi. Through the rains in spite of frequent military movements and the establishment of numerous posts on the chief lines of communication these gangs remained unbroken enough to undertake the offensive. Buddha Yaza obtained almost complete control of the Taungnyo valley, where for the most part he suppressed dacoity pure and simple.

Communications were constantly interrupted, launches on the river between Sinthewa, near Pyinmana, and Toungoo were attacked and dacoities were committed and houses burnt not only in outlying villages, but even in the town of Pyinmana itself, part of which was actually for a time in the hands of the rebels and subject to frequent raids. The military were handicapped in their pursuit by the quagmires which covered most of the roads. Lieutenant Shubrick of the Somersetshires was killed in the village of Kwingyi near Thayagon, 4 miles east of Pyinmana, while breakfasting after having destroyed some surrounding villages. The garrison of the district was much weakened by sickness, and the nature of the country under the Shan hills and the climate, which are practically the same as the Minbu "terai" under the Arakan Yoma, entirely prevented, the undertaking of any sustained military operations and the town was threatened on all sides. Large reinforcements at the end of the year and the energetic guidance of General Lockhart broke up the control of the leaders and kept the various gangs always on the move leaving them no rest, night or day. The most successful of the operations was on the 12th November 1886, when the camp of the Kyimyindaing near Shwemyo was surprised at dawn. The so-called Prince himself narrowly escaped capture and his wife was unfortunately shot dead in the first volley. On our side Lieutenant Eckersley of the Somersets was killed. On his tombstone he is described as of Standish Hall Lancashire and as killed at Kyetswaymyo. This action at once reduced the pressure on Pyinmana, but the danger of the Yamèthin road had greatly increased. The dense bamboo and "*kaing*" grass jungles at Kanhla greatly favoured the dacoits. In October they captured a convoy of 17 carts and on the 13th November attacked a party of Madras troops under Lieutenant-Colonel Anderson, who was severely wounded in the neck, besides which there were 11 casualties. On the 17th of the same month, however, a column drove them from their rifle-pits at Kanhla, but with the loss of Lieutenant Greenwood of the 16th Madras Infantry killed. The site of another fight near Htandawgyi is now called Kalathegon. The result of these skirmishes was to drive the dacoits from the Kanhla area. Buddha Yaza retreated from Gwebin where a military post was established and attacked columns in the Hlesan defile when they marched up the Sinthe. A road was therefore made over the hills from Gwegyi to Myetyè. At length Colonel Beale of the Queen's broke up Buddha Yaza's camp in the Taungnyo valley and captured several jingals. Buddha Yaza himself just managed to escape on an elephant to the

head waters of the Sinthe whence he continued to issue forth on raiding expeditions. Military police posts were then set up at Aingye and Taungnyo.

Other actions soon cleared the trunk road and ensured the safety of convoys from the dacoits. But the hills afforded them a temporary refuge and there were still large bands to be dealt with. Further north the situation was similar though the dacoit bands were smaller on the whole. The Yamèthin District as at first constituted, included Meiktila and extended as far as the Kyauksé border. Posts at Meiktila, Mahlaing, Yindaw and Wundwin introduced order in their immediate neighbourhood and to some extent on the roads between them, though in April Lieutenant Forbes of the 11th Bengal infantry was killed not far from where Thazi station now is. But the record of the greater part of the year for the Yamèthin District was merely an account of dacoities and expeditions, more or less temporarily successful, but never decisively so on account of the elusive character of the dacoits who sometimes even ventured to attack the smaller posts such as Yindaw. At the end of the rains the garrison was strongly reinforced and undertook active operations with considerable success against the more important bands. The amount of revenue collected up to the end of November 1886 was over £3,500.

Pacification.

Systematic operations were continued in 1887 and met with more success in Yamèthin than in Pyinmana. Many of the principal leaders in Yaméthin and Meiktila surrendered in May and by the end of the year no large gangs or important leaders remained. The district continued to be disturbed by broken bands from neighbouring districts though the dacoits were not a serious type. Crime of this kind could not be put down till the Poppa, Pin and Yoma bands were finally broken up. From £9,481 in 1886-87 the revenue increased to £22,080 in the following year, and in 1889 the strength of the military police force was considerably reduced with no loss of security to the people.

In Pyinmana great activity was displayed in 1887 by the troops and the police in thoroughly exploring the forests and clearing them of dacoits. The disarmament of the district was at the same time vigorously enforced and men of local influence greatly assisted our officers in the process. With the rains there was a partial recrudescence of disorder. Some troublesome gangs collected in the hills on the east of the Sittang river under the protection of the Karen Chief, Ethataung of Bawgata and of other local men. From these hills they committed raids on the plains and carried off elephants and buffaloes from the forests. In April 1888 a

Burman police post, at Sinthewa 6 miles from Pyinmana, was attacked and burned by a gang of 50 dacoits led by Maung Hnit *alias* the Nethuyain *Mintha* and in May a similar but outlying post at Seikpyudaung was destroyed by the same gang. Between March and September large gangs of dacoits on three occasions attacked Karen guards in the forests, and in the first seven months of the year 143 violent crimes were reported.

At the end of October 1888 there were in the district four large gangs of dacoits under Nga Hlauk and Tok Gyi, Tha Hlaing, Nga Nan and San Pe. In the beginning of 1889 the Village Regulation was enforced and villages which were known or reasonably believed to harbour dacoits were removed to the neighbourhood of police posts. At the end of February the combined bands of Tha Hlaing and San Pe were attacked and broken up. The leaders retired to the petty Karen State of Bawgata in the hills and thence raided on the plains. The Deputy Commissioner, Mr. Porter, followed them up with a party of military police. The Chief Ethataung submitted on the advice of his Roman Catholic priests and the dacoits fled east to the Mong Pai hills and ceased to be a danger. The other robber gangs were equally disposed of. From January to September 1889 17 dacoits were killed and 62 arrested, while 17 surrendered unconditionally. None remained at large, except those who were professsional dacoits from Burmese times, or who had made clemency impossible by their crimes. The Bombay Burma Trading Corporation was able to extend its operations and increase its establishments far beyond any previously attempted area or strength. By May 1889 the Corporation was able to dispense with armed guards and returned 100 muskets to Government.

By the end of the rains of 1889 all the large gangs of rebels that had so long opposed our troops in the plains had been completely broken up. The utter hopelessness of resistance in the open was realized and the establishment of a series of posts had driven the remnants of once powerful bands to take refuge in the inaccessible broken tracts which form so marked a feature of Upper Burma. Thus Buddha Yaza, Thiha Yaza, Shwe Daik, Tin Baw, Lugale Gyi and Aung Baw were crowded into the hilly country of the Yomas lying between Magwe, Pyinmana and Yaméthin.

This altered condition of things changed the character of the operations in the plains. Large columns of troops were no longer required to scour the country and attack strong bands of rebels. The military garrison was reduced and numerous military posts which had been needed

to overawe the plains were withdrawn. Thus in 1886 the average number of troops in the Pyinmana district was 14,000, but by the end of that year 25,000 were stationed there while in 1888 the total force in Upper Burma was only 13,250. From 1st April 1888 the Yamèthin and Pyinmana commands were included in the 3rd Brigade which had its headquarters at Meiktila and from 1889 onwards was included in the Rangoon District.

Meanwhile the Magwe, Pyinmana, and Yamèthin police under the general control of Mr. Porter, Deputy Commissioner of Pyinmana, acted on a systematic plan against the Yoma gangs and drove them from hiding-place to hiding-place.

There was some fierce fighting in this area and cemeteries of British troops then killed are still visible in the Yoma jungles. Many villages are named after these battles such as Taikma in the Ngalaik reserve and Taikkwe and Taikthingyaung on the Magwe side. In order to block the roads and prevent the escape of the dacoits, temporary military police posts were established in the immediate neighbourhood of the Yomas, four in Magwe and six in Pyinmana. The posts already existing in the Toungoo and Thayetmyo districts were strengthened and roads and tracks connecting the Pyinmana and Magwe districts were made. The policy of permitting the surrender of all but those who had been guilty of specially atrocious crimes was consistently pursued, and in 3 months 79 dacoits, of whom 17 were leaders of more or less importance, had been killed, or captured, or had surrendered. A large number of firearms had been seized. and at the end of May the Yomas had been brought under complete control.

Archæology.

The Yamèthin District does not appear to have contained a large or wealthy population at any period. It was constantly being over-run and the general tendency was for each invader to destroy rather than create, and as the only materials readily available for building were timber and bamboos it is hardly surprising that there is a lack of antiquities.

Pyu Sepulchres at Nyaunglun.

Mr. Taw Sein Ko, late Government Archæologist, in 1903 visited Nyaunglun and the surrounding country with the purpose of finding out something about the Pyu sepulchres reputed to be there. He excavated in two or three places but found no urns. He did, however, unearth a huge brick measuring 1ft. 5½in. in length, 8¼in. in breadth, and

$2\frac{1}{2}$in. thick. The following extract is taken from his report :—

"The locality is redolent of traditions regarding the Pyu people, and their sepulchres have apparently been dug into in former days. The Pyu flourished about 2,000 years ago, and treasure-hunters had a long time for carrying on their nefarious work.

The hill ranges near Nyaunglun appear to be the habitat of the remnants of a great many broken tribes, and to present a good field for ethnographic studies. The hills have afforded an asylum to the warring Karens, Taungthus, Shans, Chins and Burmans.

The country about Yamèthin appears to have been occupied by a succession of races in the following order :—

(1) The Ba-U who may be identified with the Taungthus or Karens of the present day. The Taungthus of Thatôn call themselves Pha-O, or ancient fathers.

(2) The Pyu, a Shan tribe, which originally came from Szechuan and Yunnan, and which subsequently succumbed to Brahmanical influence at Prome. It shifted its habitat to Pagan in the 1st Century A.D. There was a Pyu settlement at Taungdwingyi in the Magwe district in the 5th Century B.C. and the earliest Pyu settlers of Yamèthin must have come from Taungdwingyi rather than from Prome or Pagan.

It is, however, quite possible that they were subsequently joined by their fellow-tribesmen from Pagan.

(3) The Shans.

(4) The Burmans.

I have come across some Pyu urns in the Prome District. They are shaped like the Indian lotah, a round earthernware vessel with a small neck, and contain the ashes of the dead. Each family had a square brick vault of its own, and these urns were arranged in an order of precedence."

The line of the moat and walls of Taungnyo, also a Pyu Settlement, is still traceable and on the site of the old city on the hill top large quantities of broken pottery are found which local belief assigns to an ancient past.

Ancient Cities.

Some half dozen miles south of Taungnyo the site of the old city of Lema which was founded early in the 16th century is still commemorated in the name of Myohaung *kwin* in the Mingôn village-tract. A dozen miles further south the present village of Thabyegon in the Kyetpye village-tract occupies part of the site of the old *Kyetsa myo* dedicated by King Thawunngé of Toungoo in 1366 to the golden cock which was lost in the jungle near here. Some small portion of the outline of an ancient Settlement can be faintly discerned. Near Kyidaunggan can still be seen some traces of the ancient fortress of Pyagaung founded by King Moingyinyo in 1526. East of the Sittang near Aungalein village part of the moat and wall of Zeyathein, the original Ela, is still clearly to be traced.

CHAPTER III.

THE PEOPLE.

The returns of the population of the Yamèthin District since the Annexation have been :— Population.

Population.

Township.	1891	1901	1911	1921	1931
Yamèthin ...	70,782	67,872	80,588	75,809	90,480
Pyawbwè ...	41,536	42,495	47,525	43,464	54,669
Yanaung ...	37,890	40,694	49,265	51,347	61,353
Pyinmana ...	46,021	61,578	80,380	91,396	111,003
Lèwe ...	10,328	30,558	49,661	61,173	73,315
Total, Yamèthin Subdivision.	150,208	151,061	177,378	170,620	206,502
Total, Pyinmana Subdivision.	56,349	92,136	130,041	152,569	184,318
Total, Whole District ...	206,557	243,197	307,419	323,189	390,820

The fluctuations of the population of the Yamèthin Subdivision are due partly to changes in the District and Township boundaries, partly to emigration to Pyinmana and other more fertile areas after a series of bad harvests. The increase in Yanaung Township is attributed to the colonization of fresh areas by emigrants from the still less fertile parts of Magwe and Myingyan Districts particularly from the neighbourhood of Mount Popa.

The large and steady increase in the Pyinmana Subdivision, where the population has more than trebled itself in 40 years, is due to the wide extension of cultivation and the opening up and development of the forests since the establishment of peace and security under British rule.

Distribution. The population of the district is mainly rural and devoted to agriculture and forest work with a density of 93 persons to the square mile.

There are only three towns. Pyinmana with a population of 17,656 is the most important and ranks as the fourth city of Upper Burma though its population has increased by only 3,268 since 1901. Yamèthin with a population of 9,291 shows an increase of only 611 during the same period. Pyawbwè is a small town of 6,160 inhabitants.

Only three village-tracts contain more than 1,000 houses—Lèwe, Ela and Kyidaunggan. Twenty-four others contain over 500 houses but they consist mainly of rural villages and only Lèwe, and the headquarter villages of Ela, Kyidaunggan, Thawatti, Kantha, Yanaung and Nyaunglun have any urban character.

Race. The population of the District is overwhelmingly Burmese. Burmans account for over 91 *per cent* of the total, other indigenous races (Shans, Karens, Chins) form 2 *per cent* while 3¼ *per cent* are Zerbadis. Indians of various kinds comprise just over 3 *per cent* and the balance is made up of some 1,400 Chinese, and a few Europeans, Anglo-Indians and others.

Zerbadis. A number of villages, chiefly in the Yamèthin Subdivision, have been occupied for generations by colonies of mixed Indian and Burmese descent. Though they have long since adopted the speech, customs and dress of the Burmese they still remain faithful to Islam. Harvey considers them to be the descendants of Mahomedans captured among the defenders of Pegu in 1539 and 1599 or at the fall of Syriam in 1613 who in lieu of pay for their services were appointed hereditary musketeers of the guard.

The Upper Burma Gazetteer however gives the origin of these Settlements as follows :—

"In the year 1070 B.E. (1708 A.D.) King Arlangiri ruled in Delhi. He had two sons the younger of whom was jealous of the Crown Prince, and eventually seized and imprisoned his father and usurped the throne. The Crown Prince fled from Delhi to Calcutta with 3,000 of a following, and from Calcutta made his way to Arakan where he and several of the chief emigrants died. At this time the King of Ava was Bodaw Sa-ne *Mingaung*, grandfather of the King of Ava who was taken prisoner by Rajadirit, King of

Pegu. This King allowed the fugitives to come from Arakan to Ava, but when he found them so numerous, ordered them to settle by *O-sa* or batches of seven families in each of the following places :—Taung-ngu, Yamèthin, Nyaungyan, Yindaw, Meiktila, Myedu, Ngayanè, Kawthanthi and Sibatbya. The immigrants numbered 63 families and were thus separated for safety's sake. At each Settlement a fixed area for their residence and cultivation was marked out. The following were the boundaries allowed for the residence of the Yamèthin *Kulabyo* as the new settlers were called :—To the north Magyibin and Pasittok ; to the south the Sithema (Sinthe ?) *chaung* ; to the east the Onbin *chaung*, Yele ; and to the west the Lemyaung-baungyo. The limits within which they might cultivate were :—On the north the Myeni *chaung*, near Shadawgan ; on the south the Kudaritkon ; on the east the Nyanswe-gon ; on the west the Thitke-gyun. Both these tracts were jungle and waste land at the time of allotment. The lands were not considered Crown lands but free gifts from the King and differ entirely from the so-called "*Kulabyo-Ahmudan-sa-mye*". This last was land allotted, at their choice, instead of a monthly wage of Rs. 10 to the *Kulabyo Ahmudan* which was a force consisting of 150 descendants of the Delhi immigrants permanently quartered in the palace.

The chief Zerbadi Settlements are now found at Uyinzu near Pyinmana where they number nearly 1,000, at Yindaw Kalaywa (700), Kyattwin, Pinda, Hlwèbaukkon, Obingyan, Yelègwe, Nebugon, Kyetsha and Maligon as well as in Pyinmana and Yamèthin, though in these towns it is probable that the numbers (nearly 2,000 in each) have been increased by the offspring of much later immigrants.

Karens have been settling in the District since at least the beginning of the 16th century. The hills all round the east and south-west of the Pyinmana Subdivision are inhabited by various tribes of Karens ; but though they carry on a regular trade in the betel leaf and sesamum which they grow with the inhabitants of the plains very few of them have come there to settle permanently. They are however found in small numbers in the villages of Kayinywa and Gwedaukyo in the Lèwe Township and the inhabitants of Aingye and other villages in the north-west corner of the Pyinmana Township are reputed to be of Karen origin though they now call themselves Burmans. Karens.

But the most important Settlements are the Tributary States of Alègyaung-Bawgata and Pyadaung-Koywa which are described in more detail in Chapter XIV and other villages in the Paunglaung hills such as Banpa, Bomataung

Hngetkyidaung, Kodit, Kwetugyi and Kwetugale, Mayandaung, Mèbauk, Mèhaw, Ngokchaung, Saluchaung, Tabindaung and Teinpyaung.

The Society for the Propagation of the Gospel, the Roman Catholics and the American Baptist Mission have converted a number of the Karens, and the inhabitants of Alègyaung-Bawgata are almost all Christians. Pyadaung-Koywa is predominantly Buddhist and most of the remainder are still Animists.

East of Pyinmana the people speak Chekko Karen the pronunciation varying slightly from village to village while in the south-east the speech is Karenbyu.

Shans. Though there is reason to believe that some of the original Shan settlers were captives taken in war or fugitives, there has been a good deal of subsequent immigration either direct or *viâ* the Toungoo District where they are found in large numbers and also from the Thitkyeik State which was annexed by Thibaw in 1885. Their chief colonies are at Seiknandon (founded 1832), Kanbè (settled in 1900), Palwe Shanzu, Lèluaing, Letpanbingu and Shanzugyi in the Pyinmana Subdivision. Some of them are skilled weavers of mats and baskets.

In the Yamèthin Subdivision they are found along the foothills and are of the mixed race known as Danus. Their chief villages are the two Kyaunggons, Ywathit, Wabyantaung and Zibyugon. According to the Settlement Officer "The semi-hill folk along the eastern border of the Pyawbwè and Yamèthin Townships are of mixed Burman and Shan descent and are known variously by the plainsmen as Danus, Taungthus, Bohus, and La Aw La È. The last two sobriquets appear to have the same meaning as 'Yahoo'. They live by garden and *taungya* cultivation and are indistinguishable from Burmans though some of them wear trousers."

Chins. Isolated colonies of Chins are met with in the Lèwe Township along a line drawn east and west through Ela. They have come from Taungdwingyi and Allanmyo and are mostly Asho Chins, though the Linguistic Survey of Burma describes them as "unclassed." Their chief Settlements are at Kantha and Chinzu near Lèwe, at Pinthaung and Kyauko, on the east of the Sittang a little south of Ela, and at the recently established forest village of Hebron, a few miles west of Ywadaw station. All or most of the inhabitants of Hebron are Christians. In the other Settlements some are Christians, some Buddhists and some Animists.

Pyu. The Yamèthin District was at one time one of the Chief Pyucentres. Remains of Pyu civilization have been found

near Nyaunglun. Taungnyo is reputed to have been founded by them as well as Myetyè to the north and Kaing to the south and the whole Taungnyo Valley was at one time occupied by the Pyu. The only present survival is in Kainggale Village in the south of the valley where some thirty persons, though indistinguishable in speech, dress and manners from their neighbours, are still known as Pyus and regarded with some contempt. They are Christians of the American Baptist persuasion.

At Thagiwin in the eastern foothills between Yezin and Shwemyo was found as recently as the Settlement of 1911 "a curious people known as Talaings. They refuse to possess money and are said to subsist by weaving mats which they barter for rice and *ngapi*. They understand Burmese but speak among themselves a language which resembles Karen." They were sometimes also known as Panyangs and White Karens but the Linguistic Survey classed them with the Talaings of Lower Burma, and the Panyangs or Banyins are a different people living in Banyin Village near Byingyè beyond the boundaries of the District. **Talaings.**

Local legend traces their descent from the Aris—that dark sect which Anawrata suppressed. The story is that Shin Arahan came from Thatôn to Pagan preaching the true Buddhism to which the people responded gladly. The Aris therefore gradually lost their influence and hated Shin Arahan and began to plot against him. This was told to Anawrata who thereupon arrested 30 Bishops with 60,000 of their followers and after a period of imprisonment compelled them to become laymen and found them work as soldiers, grooms and servants.

Some of them fled to Talaing Hill, south-east of Pagan and prepared to take up arms against the King. But when Anawrata sent a force to deal with them, the Aris fled to the higher slopes of the Talaing Hill where they supported themselves by *taungya* cultivation. From that time they became known as Talaings because they lived on Talaing Hill. They continued their workship of the *Nat Naga* or fairy dragon and at the instance of the leaders renounced the use of silver and gold and took wives only from among their own relations. Scarcity of culturable land caused a part of the people to move to Zayitin Hill. They then felt the need for a king. According to custom therefore a spear was fixed horizontally and it was declared that whoever could transfix himself on the spear without hurt should be king. One of the Zayitin Bishops succeeded and the place was therefore called Thagiwin (လှံ့များကိုတိုးဝင်နှိုင်သောကြောင့်). From that time the other Talaings had to give the Zayitin king spears,

dahs, axes, and spades whenever he needed them. In after times these people lost their power, began to use money and to intermarry with the neighbouring Karens and moved up into the hills where they cultivate *taungya* and are not to be distinguished as a separate race.

Indians. Returns for the Indian population at the 1931 Census show 5,708 male and 2,183 female Hindus and 2,034 male and 661 female Mahomedans. They are nearly all to be found in the towns and railway station villages. They are mostly shopkeepers, railway employees, coolies, gharry wallahs and rickshaw pullers. A number of dairymen are scattered about the district breeding large herds of destructive and degenerate cattle. Very few are agriculturists though a few Chittagonians grow tobacco along the Sittang near Ela.

Chinese. According to the Census figures there are 1,027 male and 412 female Chinese. They too are found mostly in the towns and larger villages and along the railway line but they are also found in ones and twos scattered all over the District.

The pawnshop and liquor licenses are entirely in their hands. Most of the jaggery made from the Pyinmana sugar cane passes through their hands and they run most of the restaurants and many other businesses. A few are cultivators.

Religion. According to the Census of 1931, 360,353 persons or rather more than 92 per cent of the population were Buddhists. This represents the Burmese population with the addition of most of the Shans and Chinese and a few Karens. Mahomedans, principally Zerbadis, held the second place with nearly 4 per cent followed by Hindus with nearly 2 per cent. Animists numbered 4,031, Christians 2,514, Sikhs 1,141, Confucians 105 and Jews 7.

Houses and Dress. Generally speaking the houses of the people are worse in the northern part of the District than in the south. In the Yamèthin Subdivision nearly all houses are of mat and thatch with jungle wood posts. Wooden houses are rare and brick buildings are not found outside Yamèthin and Pyawbwè. In the Pyinmana Subdivision the majority of the houses are also of mat and thatch but they seem to be kept in better repair than in the north. Nearly every village has a proportion of wooden houses many of them substantial buildings of teak or other good timber and corrugated iron roofs are fairly numerous. Brick buildings are numerous in Pyinmana and are also found in smaller numbers in Lèwe, Ela and Kyidaunggan as well as in villages like Pyokkwè, Yezin and Natthayè.

Clothes are the same as those worn elsewhere. Cotton is general for every day wear. Practically the whole of the Yanaung Township makes its own clothes either with

homegrown or bought cotton and the surplus manufactures are sold in other parts of the District. In the cotton growing areas of Yamèthin and Pyawbwè Township and in a few villages in the north of Pyinmana Township clothes are home made. But in the greater part of the Pyinmana Subdivision clothes are all bought. Women's *longyis* are nearly all of cheap imported cloth but for rougher work the men prefer the more durable cloth woven in the dry zone from which so many of them originally came. Silk weaving is rare. Jungle dwellers buy silk clothes only in years of prosperity. Especially among the younger generation there is a tendency for "Sunday go to meeting clothes" to be of the cheaper imported artificial silk or mixed silk and cotton rather than the more expensive native silks "which last for ever and a day."

Rice is the staple food of the people. *Taungdeikpan* is the variety most generally favoured for home consumption by those who can grow it or afford to buy it. But the majority have to be content with *ngasein* and other cheaper kinds. In the Pyinmana Subdivision recourse is had to no other grain except in seasons of great scarcity when maize is also used. In the poorer Yamèthin Subdivision millet and maize are regularly used instead of or as an addition to rice. Sesamum oil and groundnut oil are both used for cooking. Sesamum oil is the more liked but the poorer people generally have to be content with groundnut oil. *Ngapi*, *ngachauk*, pulses and vegetables either wild or cultivated – are, as usual, important articles of diet. Meat is eaten when money or opportunity afford it. **Food.**

In 1902 the Original Settlement Officer wrote "The general opinion in the District is that the people are on the whole in a better condition now than in King Thibaw's reign. With the frequent inadequate rainfall, deterioration of irrigation works, increased *thathameda* and land tax and no demand for the surplus products of the land in good seasons the people were much impoverished at the time of the annexation. Though the *thathameda*-tax has not been reduced and the rainfall if anything is worse now than before in the northern parts of the District, improved irrigation, better means of communication, higher wages obtained by labourers, and the relief afforded in times of scarcity by large remissions of revenue and the opening of famine works have been beneficial to the inhabitants." **General Condition of the people.**

Since then irrigation has been developed, the *thathameda* tax has been considerably reduced, and the introduction of new crops, groundnut, *malpè* and *pèsinngon* has given the cultivator of the dry zone a better chance. But in the

Yamèthin Subdivision natural conditions remain unfavourable and the Revision Settlement Officer in 1927 wrote that "On the whole the people may be considered normally poor and in some years needy."

In the Pyinmana Subdivision however there can be little doubt that, apart from the present depression, the prosperity of the people has been steadily increasing. The vast expansion of cultivation and the development of the Forests have brought a great deal of money into the area and the standard of living is considerably higher than it was thirty years ago. The fertility of its soil, the security of its rice crop and the accessibility of its forests should place the Pyinmana Subdivision in a favourable position to benefit by a general improvement in trade.

Buddhism and *Nat*-worship.

A great majority of the people of the Yamèthin District profess Buddhism. Census officers since 1891 have all attempted to define this. Mr. Eales in his Census Report of 1891 thought there was really very little Buddhism amongst the Burmese and was struck with the very vague notion which the ordinary lay Burman has about the religion he professes. This he considered no more than "a thin veneer of philosophy laid over the main structure of Shamanistic belief" or devil worship. To this Mr. Lowis added in the Census Report of 1901 ; "Let but the veneer be scratched, the crude animism that lurks below must out . . . To the end of time the Buddhism of the Burmese will never be anything more than a polish." These opinions were accepted also by Mr. Morgan Webb in his Census Report of 1911, and for many years they passed unquestioned in official publications. Mr. Grantham in his Census Report of 1931 rightly considered more should be said. He was struck with the fullness of knowledge of quite slightly educated Burmans and even of some ordinary uneducated cultivators about their religion. "All over the well cultivated parts" he wrote "where the bulk of the people live there are numerous Buddhist monasteries and pagodas which keep their religion continuously before the eyes and in the minds of the people ; the children go to school in the monastery ; the monks preach and at least the older folk listen to them; the older folk spend frequent days in meditation. The younger adults may seem to be careless and to give only a passing thought to their religion on special occasions but they have in their hearts the firm intention of copying their elders when their own time comes."

As one goes out to the less populated parts one finds the influence of the monks in spreading a knowledge of Buddhism grows less. Monasteries are fewer and more widely scattered ; people have less intercourse not only

with monks but with each other ; their minds have less development altogether, and with this there is less knowledge and realisation of Buddhism. These also are the people who in a superficial way see more of the working of physical nature, for which they are inexorably compelled to furnish some explanation ; and if they devise or support explanations which seem to some to be not strictly in accord with their religion, they are not the only people who have done so. They represent a stage through which the more advanced part of the people have passed ; but they are not typical of the population and they are on their way to the stage which the typical part has reached. Of some of these it may be said with some truth that animism is their religion and Buddhism a veneer, but there is not the same truth in applying that to the typical Burmese villager. Not that he is free from all that is not Buddhist. An advanced religion when first given to a people never finds in their minds a clean slate to write upon. The heritage of many generations is not completely blotted out even in its leaders by an intellectual assent to new ideas ; and the masses of the people only follow far behind their leaders, combining a little and a little more of the new religion with the old. Thus no advanced religion is quite the same as it is expounded by its teachers and as it is regarded by the masses of their followers ; and the existence of many non-Buddhist beliefs and practices amongst the Burmese Buddhists would not be a denial of their claim to be Buddhists.

In any case Buddhism, even in its heyday in India, included much of the old religion and culture which had preceded it ; and this must be true of the Buddhism which was brought to Burma and there came into contact with the previous culture of the Burmese and Talaings or their forbears. Thus Thakya Min, the King of the *Nats* or spirits, whatever he may have been before, became the Burmese interpretation of the old Hindu god Indra ; and his *nats* are the beings that inhabit his sphere. There has been a confusion of thought between *nats* who are the *devas* of the six abodes (in Burmese, *nat-pye-chauktat*) and the local animistic *nats*, and often a Burman speaking of the former is wrongly supposed to be speaking of the latter or is himself confusing the two. Originally no doubt the *nats* were the spirits of the primitive pre-Buddhist religion and there are still *nats* everywhere in every village, forest, or field. But generally the Burmese attitude to the *nats*, although it was not learned from him, is that of Confucius who gave the advice : "Pay all respect to spiritual beings but keep them at a distance." The Burmese Buddhist in

the ordinary populated parts of the province makes offerings to the *nats* because that is the way of defending himself against them ; this is not a contradiction of his Buddhism, but like the fence he builds around a lonely new settlement in the jungle to keep out tigers at night, it is to ensure a continuance of the life and conditions in which Buddhism may be practised. Even the so-called *nat*-worship has been modified by Buddhism ; and it is difficult to accept the description of it as Shamanism with all the connotations of frenzy and priestcraft which go with that name. There are no priests of the *nat*-worship ; the *nats* are simply essential facts of the universe of which each person must take account just as he does of gravity, friction, inertia and fire. There are still a few *nat*-festivals held, such as that at Taungbyon near Mandalay where certain women dance after *nats* have taken possession of them ; but these are about as representative of Burmese thought as Jack-in-the-Green is of English. Much of the *nat* culture is on the same footing as the fairy-tales in the folklore of Europe ; the rest is simply Burmese science."

Nat-Legends

None of the 37 *nats* has any special shrine in the Yamèthin District and probably the most notable of the minor *nats* are the Kandaw-maung-hna-ma whose shrine or *nat-sin* stands at the south-east corner of the Shan Tank in Pyinmana Town. The *nat-sin* is said to have been first built at the north-east corner of the Shan Tank very many years ago and to have been moved to its present position some 25 or 30 years ago. Considerable attention is said to have been paid to the *nats* and their shrine when the Shan Tank was repaired at the time of erection of the Lawkamarazein Pagoda near by in 1239 B.E.

The story of the *nats* is told as follows :—

"In the reign of King Nawra-hta some repairs were made to the Meiktila lake but the people could not finish as the *nats* were displeased and so human sacrifice was contemplated according to the custom of *nat* worshipping. With the approval of the king lots were drawn and unfortunately the lot fell upon one of the queens of the king. She was called Palèyin and was the daughter of a certain Shan *Sawbwa* and her brother was Maung Pyi. As she was then pregnant she begged to be spared but the king though he loved her dearly had to sacrifice her for the sake of his subjects. She was then buried alive in the tank and the repairs were successful. She however became a *nat* and a temple was built in her honour. Her duty was to guard all big tanks and wells, and *nat-sins* were erected for her in such places of importance. Her brother also died after

riding round the Meiktila Tank under orders of the king to see whether it reached Mount Popa, and his last words were "မထောင်တလှဘာဘူး။" (*Ma-htaung-da-hla-ba-bu*) meaning "It does not matter much." His spirit also became a *nat* known as *Ma-taung-da*, referred to in the Meiktila Lake inscription. The spirits of the brother and the sister then joined together and kept guard over the big lakes and wells under the name of "*Kan-daw-maung-hnama*" *nats*. They are also separately known as Palèyin *nat* and *Maung-taung-da nat*.

For offerings to the ordinary *nats* of field, stream, and house the following are the rules :—Avoiding an inauspicious day (*pyat-tha-da-yet*) the cultivators in each stretch of field and stream offer to the guardian *nat* of field and stream bananas, jaggery, betel-nut and betel-leaf, *kauk-hnyin* rice, tea (*let-pet*) and a bamboo mat on a sheaf of corn in a corner of a field on one day of planting and one day of reaping with the prayer "Let the paddy and crops prosper and beasts leave the fields". **Nat-offerings**

Thrice a year on the 1st Waning of *Waso* and *Thadingyut* and on the 1st day of the *Thingyan* period (Burmese New Year's Day) all the villagers collect at the *nat-sin* or shrine at the top corner of the village and offer bananas, jaggery, betel-nut and leaf and white rice with the following prayer :—

"May we be free from the five kinds of enemies."

The enemies are ရေ။မီး။မင်း။ခိုးသူ။မချစ်မနှစ်သက်သောသူ။. That is to say water, fire, Government officials, thieves and those who do not like us.

Inauspicious days are :—

In *Tagu*, *Wagaung* and *Nattaw*—Thursday and Saturday.
In *Kason*, *Tawthalin* and *Pyatho*—Wednesday and Friday.
In *Nayon*, *Thadingyut* and *Tabodwè*—Sunday and Monday.
In *Waso*, *Tazaungmon* and *Tabaung*—Tuesday and Wednesday.

Great is the belief in the necessity of ascertaining a suitably lucky day on which to embark on any enterprise, marriage or other important ceremony as well as in deductions from horoscopes and other methods of fortune telling. Prophylactic tattooing is one of the commonest forms of superstitious practice and most people are tattooed against danger from snake-bite and other common evils. When ignorant people are further induced to believe that tattooing, embedding in the flesh of magic needles and other similar superstitious rites can give immunity from gun-shot wound and *dah*-cut an infinity of trouble is caused. One of the most notable features of the 1931 rebellion was the extraordinary **Superstition.**

hold which superstition, even of the most absurd type, has on the minds of the Burmese people of almost every class. And indeed it is a sad commentary on the influence of Buddhism that monks should be found taking a leading part in superstitious practices and be often the most expert tattooers, fortune tellers and astrologers.

Pagoda Festivals. The annual Pagoda festivals are a prominent feature in the lives of the people. About a score of these festivals are held in the District during the year mostly between the end of the Buddhist Lent in October and the coming of the very hot weather in April. These gatherings "are the scene of activity, pious, social and commercial. Cheerful family parties of gaily clad villagers drive in from all sides amid clouds of dust urging their bell-laden bullocks to their fastest paces. On arrival they worship at the pagoda, meet their friends and make their annual purchases of such commodities as are not available at the ordinary five-day bazaar." The description of Pagoda festivals in Kyauksè applies also to similar gatherings in Yamèthin except that in some parts the motor omnibus is ousting the family cart.

Below is a List of Pagoda Festivals.

Serial No.	Township.	Festival.	Date.		Remarks.
			From	To	
1	Yamèthin	Shwemyin-din.	*Tabaung Lazôk* 3rd.	9th ...	Yearly with *Pwè* and Bazaar.
2	Do.	Shweyinbon	*Tagu Lazan* 14th.	15th ...	Do.
3	Do.	Shwepyitha	*Tazaungmon Lazôk* 12th.	15th ...	Do.
4	Do.	Shwemoktaw	*Tabodwè Lazan* 14th.	15th ...	Do.
5	Do.	Shwewetto...	*Tabodwè Lazan* 15th.	...	Without *Pwè*.
6	Do.	On-thi-kwe Tawya paya.	*Tazaungmon Lazôk* 1st.	...	Sometimes with *Pwè* and Bazaar.
7	Do.	Satthamyaung Taung paya.	*Thadingyut Lazan* 1st.	...	No *Pwè* and Bazaar.
8	Do.	Paukaing Zeyathein.	*Thadingyut Lazôk* 15th.	...	Sometimes with *Pwè*.
9	Pyawbwè	Pawdawmu	*Tagu Lazan* 14th.	*Lazôk* ...	Yearly with *Pwè* and Bazaar.

Below is a List of Pagoda Festivals.

Serial No.	Township.	Festival.	Date. From	Date. To	Remarks.
10	Pyawbwè	Chanthagyi	*Tazaungmon Lazan* 14th.	*Lazôk* 1st	Yearly with *Pwè* and Bazaar.
11	Do.	Ko-nan-gyo	*Tazaungmon Lazan* 8th.	10th ...	Not yearly.
12	Do.	Taungdaw...	*Tazaungmon Lazan* 13th.	*Lazôk* 1st	Do.
13	Do.	Shwepyitha	*Nattaw Lazan* 10th.	15th ...	Yearly with *Pwè* and Bazaar.
14	Do.	Myatheindan	*Tagu Lazôk* 1st.	5th ...	Do.
15	Do.	Minyama ...	*Tazaungmon Lazan* 15th.	*Lazôk* 2nd.	Do.
16	Do.	Onbin ...	*Tawthalin Lazan* 14th	*Lazôk* 1st	With *Pwè* only.
17	Do.	Nagayon ...	*Tazaungmon Lazôk* 8th.	...	Without *Pwè*.
18	Yenaung	Natsanhmaw	*Tazaungmon Lazôk* 10th.	15th ...	With *Pwè*.
19	Do.	Tegyigon ...	*Tazaungmon Lazan* 6th.	8th ...	Do.
20	Pyinmana	Lawkamara-zein.	*Tabodwè Lazan* 8th.	*Lazôk* 1st	With *Pwè* and Bazaar.
21	Do.	Lawkayannein	*Tabaung Lazan* 10th.	15th ...	Do.
22	Do.	Paungdaw-swe.	*Tazaungmon Lazan* 14th.	*Lazôk* 1st	Do.
23	Lèwe ...	Yanaung-myin.	*Tabaung Lazan* 8th.	*Lazôk* 2nd.	Do.
24	Do.	Do.	*Nattaw Lazan* 13th.	*Lazôk* 2nd.	Rice offering and lighting festival.
25	Do.	Paungdaw-chetma.	*Tazaungmon Lazan* 13th.	*Lazôk* 1st	Without *Pwè*.
26	Do.	Aungmyinta	*Thadingyut Lazan* 5th.	8th ...	Lighting festival.

CHAPTER IV.

AGRICULTURE AND IRRIGATION.

Part I.—Agriculture.

Description of Agricultural Land.

Agriculturally the District is divided into the plains occupied almost entirely by rice cultivation and the uplands devoted to the cultivation of miscellaneous dry crops. The plains also fall into two divisions—in the north the plain of

Pyawbwè and Yamèthin and in the south the plain of Pyinmana and Lèwe "which forms a link between the alluvium of the dry zone and the great paddy tracts of the Lower Province." These flat alluvial plains are of comparatively recent geological origin. The formation is deeper in some parts than in others and in places slight rises of the ground, but nothing in the nature of high hills, occur. In the Yanaung Township in the north-west of the District the formation is different, presenting the usual upland appearance of heights and hollows with the agricultural conditions appertaining to similar tracts in Myingyan, Meiktila and Sagaing, *i.e.*, paddy cultivation in the valley bottoms and sessamum, jowar and cotton on the slopes."*

Soils. Pyinmana Subdivision.

The First Revision Settlement Officer described the characteristic soil of the plains of the Pyinmana Subdivision as "a brown loam which tends to become darker and stiffer in the hollows and lighter in colour and texture on the higher levels. It is not a very sticky soil; it cracks on drying but not excessively and is easily laboured after a few showers of rain have fallen on it. It predominates over all the continuously level areas and is very fertile especially when it gets a surface deposit of silt from irrigation or the natural overflow of the streams." This soil is called *myetha* and is sometimes included with *sanè* soils though the true *sanès*, which are also fairly common, are much stiffer and crack far more widely.

"The usual alluvial soil consisting of silt (*non*) mixed more or less with sand is found along the banks of streams. On the slopes the soil is in general sandy (*indaing thè* and *thèkyat*) though sometimes it is a stiff yellow clay of inferior fertility washed down from the hills. The colour and grain of the sand vary from place to place; east of the Sinthe it is coarser and darker than on the west. All gradations of sub-soil from sand and gravel to clay are found. For growing rice the cultivator prefers a sub-soil of loam or clay which holds the water and does not produce a too luxuriant growth of grass; but a sub-soil of sand under silt or loam which is often found, especially east of the Sinthe, is equally fertile when well watered."

Yamèthin Subdivision.

In the Yamethin Subdivision the chief soils of the paddy plains are again *sanè*, *myètha* and *thèkyat*. The following account is taken from the Settlement Report of 1925-27 "Owing to the fissures and cavities which form in it during the

* Agricultural Survey of the Yamèthin District by Mr. A. McKerral, I.A.S.

hot months *sanè* is apt to let the water through too quickly in years of light rainfall. *Myetha* is therefore preferred both for its greater fertility and for its ability to retain the water but as it sometimes becomes waterlogged after rain it is a dangerous soil for dry crops. Towards the north the *sanè* deteriorates into *sanè putchi*, a soil of poor fertility distinguishable by the presence of limestone nodules.

The upland *ya* soils are generally considered to be inferior to those of the neighbouring district of Magwe. They consist for the most part of various grades of sand over a clay sub-soil. The best type of fine groundnut sand occurs in Yanaung Township but its extent is very limited. The middle levels are usually *thèkyat* and *thè wun* which often raise good crops of millet and cotton. In Yanaung Township the predominating soil of the uplands is *myeni*. Where this is hard right up to the surface it is called *myenigyin*. It is an unproductive soil but if well manured will produce good cotton outturns. But the presence of impenetrably hard clay known in Yanaung as *det* makes cultivation difficult and in may places impossible."

The following table shows the acreage of the principal crops at decennial intervals since original Settlement. Area under different crops.

Crop	1902-03.	1912-13.	1922-23.	1930-31.
Mayin	730	632	1,430	458
Kaukyin	2,540	547	477	142
Kaukkyi	193,378	251,970	263,774	253,457
Total Rice ...	196,648	253,149	265,681	254,057
Wheat	...	...	101	2
Millet	23,930	17,721	24,164	3,236
Maize	6,927	13,705	29,232	27,120
Gram	1,550	1,031	3,751	9,949
Pègyi	6,509	5,451	3,924	13,724
Pèbyugale	...	...	2,195	2,157
Pègya	770	1,307	328	3,298
Other food grains including pulses and other beans.	148	5,266	47,580	40,555
Early Sesamum ...	13,010	59,111	51,266	90,542
Late Sesamum ...	...	22	7	7,841
Groundnut ...	...	269	4,957	5,277
Chillies	241	671	3,054	4,114
Sugar-cane ...	3,157	2,068	6,378	1,790
Cotton	186	1,298	1,874	4,138
Tobacco	14	141	245	1,058
Betel Vines ...	155	73	91	169
Fodder Crops ...	...	6,008	13,549	27,102
Vegetables ...	678	1,931	4,367	7,642
Onions	427	731	1,429	2,383
Plantains	1,600	1,733	1,512	1,460
Fruit gardens ...	544	607	640	463

Crops and Agricultural Practice. Mr. A McLean, I.A.S. has kindly supplied the following note on crops and agricultural practice in the Yamèthin District.

As one passes from the South to the North of the District very varied conditions are encountered.

From the Toungoo border in the south to the vicinity of Pyokkwè near the north of Pyinmana Subdivision there is a zone of rice cultivation fairly similar to the one crop conditions of Lower Burma. A large proportion of this area is more or less secured against failure by reasonably certain irrigation. From Shwemyo to Tatkôn there is a belt of rich loam soils where little paddy is grown but a wide variety of other crops in the monsoon and the cold weather. Here in most years conditions of soil and rainfall are very favourable and this might well be one large rich garden where almost all the crops of the Province other than paddy grow readily. The people however are surprisingly indifferent to their opportunities and the tract is poorly developed.

North of Tatkôn there comes the precarious paddy area of the Dry Zone with stretches to the Meiktila border. One unbroken plain in the north, this tract in the south is varied by sterile ridges where even grass cannot maintain a foothold. Here and there are minor irrigation works which in most years mitigate somewhat within their reach the ever present risk of crop failure. The general poverty and unloveliness is somewhat deceitfully obscured by the scattered growth of acacia and tamarind.

Where the Yomas tend to disappear in the low uplands which form the western fringes of the northern half of the District there is typical Dry Zone cultivation of crops other than paddy which however is planted even there wherever valleys or basins collect a little water.

These Zones are not clearly differentiated throughout nor clearly demarcated on their borders. From Thawatti to Tatkôn but chiefly in the vicinity of Pyinmana much sugar cane is grown on rich silty loam soils.

This is rotated with sesamum in alternate years, with fallow or even with rice. Also in the vicinity of Pyinmana, particularly to the north and north-west, and elsewhere maize and sesamum are extensively grown on loam soils in the early monsoon followed by a pulse crop commonly—pegyi or shweyinma in the cold weather. Early maturing types of sesamum are widely grown on lands which are subsequently planted up with paddy in the same season- Other early monsoon crops are tomatoes, brinjals, and cucumbers, these, being repeated in the cold weather. String beans are somewhat of a garden crop. Gourds are cultivated

in proximity to dwellings, and plantain gardens which are not numerous are small. There is a mango grove some few miles west of Pyinmana town but fruit is not extensively cultivated in the District although conditions would seem to be suitable.

The paddy cultivated is mostly of the *Kauk-lat* type. *Kauk-kyi* is only grown in places where a prolonged and ample water supply is assured.

Millet is rarely seen in this area although good crops can be grown, the cattle depending on grazing and paddy straw.

In the Tatkôn tract where the soils are somewhat lighter and more easily tilled and which have been more recently cleared from forest growth the monsoon crops are sesamum, maize, groundnuts, tomatoes, brinjals. These are followed by a variety of pulses in the late monsoon :—*Pèsinngon*, *pègyi*, *shwe-yin-ma*, *pègya*, *pèbyugale*, by hibiscus, chillies, tobacco and by millet. Much of this cultivation is of a somewhat haphazard nature. Crops are mixed, *e.g.*, sesamum and maize or *pèsinngon*, with little attempt to make the most of the very favourable local conditions in which weeds are allowed to run a savage riot.

In the vicinity of Shwemyo there are some plantain orchards but these are of a coarse variety and are neglected. At intervals along the Sinthe *chaung* onions are cultivated with much care and varying success and a coarse tobacco for local use.

East of Tatkôn there is a tract of good paddy land giving excellent crops when the weirs in the perennial hill streams which provide irrigation are kept in repair.

North of Tatkôn conditions quickly become less kindly. Scanty paddy and Ya crops (maize, sesamum and vegetables are freely intermingled in the harsh struggle to survive the ungenerous rainfall. Where irrigation has been organized as at Nyaunglun from the Nawin *chaung* or in catchment areas from the adjacent hills or ridges in the plains this paddy may be successful in most years.

In the vicinity of Yamèthin little but paddy is grown and this is a precarious crop. The Kyini tank and Kadin tank there permit generally some irrigation in limited areas Further north irrigation is effected on a small scale from rather scanty water supplies on streams coming from the west such as the Shweda, Wet-ma-sut, and Thitsôn *chaungs* and from the Wadi, Pyawbwè and Kyauksè tanks. The last named is the most important, serving in a normally good year some 6,000 acres up the borders of the District but in other years waterless. In the vicinity of Shweda there is a small area of dry crop cultivation where in the

monsoon, maize, sesamum, tomatoes, etc., are grown followed by the pulses already noted and by chillies, tomatoes and gram. The last named is sometimes grown in the Wadi tank when the water has dropped and when conditions are favourable may be raised after harvest in the paddy stubble near Pyawbwè. In this small area at Shweda there are a number of betel vine plots which are very carefully tended and irrigated from wells. On a smaller scale there is an area of sesamum, maize, vegetable and pulse cultivation a few miles north of Pyawbwè and adjoining the Pyawbwè-Shawbyugon road.

In the north-west of the District there are two tanks at Yindaw which feed a small area. Beyond their reach and towards the Meiktila border along the Chaunggauk stream there is again a tract of dry crop cultivation with the crops already noted.

Along the larger streams from the west the Sinthe, the Thitsôn, the Chaunggauk and on some of the smaller intervening channels onions are grown on light sandy soil. Their cultivation is carried out with much care aided by well irrigation. With this cultivation a coarse tobacco is also grown. The crops of the upland tracts of the west and north-west are in the monsoon sesamum, groundnuts and to a smaller extent cotton and maize, followed by the variety of pulses already noted, by chillies, millet for fodder and vegetables. Of the paddies in Yamèthin Subdivision only *Taungdeikpan* is of more than local importance. This finds a very good market in Mandalay.

Among the hills especially on the eastern side there are occassional *taungyas*. Sericulture is found on a very small scale in some villages on the edge of the Shan Hills and in some villages towards Taungdwingyi. South-west of Yamèthin where the plain begins to merge into the small Myohla valley there are numerous toddy palms which are tapped in season.

Burmese cattle are bred especially in the north and west of the District and among these good animals may be found. Pigs may be found in many but not all villages and the indigenous and inferior poultry occur every where.

The indigenous plough and the wooden harrow are in use throughout the District for paddy and *Ya* cultivation. The *set-tun* for paddy is practically absent. In the north of the District the new *Theikpan* ploughs cast by local blacksmiths following a trade long established in their villages are widely used. Apart from sugar-cane crushers and implements distributed by the Agricultural Department mechanical implements in Agriculture are absent.

Manuring of the fields for paddy, more frequently for paddy nurseries, for sesamum and for sugar-cane is common. This manure is of very inferior quality being merely dried up sweepings of the soil from cowpens and cattle standings and even then is left exposed for weeks or months in the fields before it is incorporated with the soil. The principle of green manuring is apparently unknown and chemical fertilisers are a very recent introduction and yet but scantily used. Paddy is generally raised in nurseries and transplanted but broadcasting is resorted to at times such as the present when depressed values and belated rain make it almost a necessity.

Other crops are generally broadcasted but vegetables such as tomatoes and brinjals and chillies are cultivated in lines and often get fairly careful cultivation. It has been noted that upon onions much careful hand labour is spent.

After much demonstration some adoption of line showing and intercultivation of other crops such as maize, ground-nuts, beans, appears to be occuring in Yamèthin Subdivision.

Pyinmana Central Farm.

At Pyinmana is the Central Farm of the Agricultural Circle comprising Yamèthin and Toungoo Districts and Taungdwingyi Subdivision. Although the 54·6 acres were acquired earlier the Farm was not equipped with staff and buildings until 1925 and not fully laid out and croped until the following year. The special crop of the Circle is sugar cane and the Farm is equipped with a small *Kyanthaga* factory and a small research laboratory for the chemical side of the work on sugar-cane.

Apart from some miscellaneous functions at the Central Farm of the Circle the work carried out falls into three sections, *viz.*,—work on sugar-cane, work on paddy and development of a small horticultural section.

The two varieties of sugar-cane most widely grown in the circle and apparently throughout Burma are a yellow cane which has different local names but has been definitely indentified with the old widely known Otaheite of commerce and a reddish green cane not identified outside Burma. The former has long since ceased to be an important variety in the cane-sugar industry and the latter is not an outstanding cane in the point of yield or of sucrose content.

One of the first objects of the Farm was to secure a superior cane capable of replacing the above two. A large number of exotic canes (some twenty or more) which had been introduced at an earlier date were re-examined on the Pyinmana Farm. While a few of these have proved definitely superior to the local canes the above object appears to have been achieved in a new introduction direct from Java

to the Pyinmana Farm in 1926. This cane has a good sucrose content, far surpasses the local canes in point of yield, ripens earlier and gives some promise of ratooning successfully. It is already meeting a keen demand from the local growers. From other work useful information has been obtained on the subject on manuring this crop, particularly on the value of chemical fertilisers, and experiments are being made in crop rotation and in modifying the somewhat expensive methods of cultivating this crop in the local practice. The area suitable for paddy cultivation extends to a few acres only and these have been used to try out superior but medium life period strains selected elsewhere with a view to meeting the needs of the subdivision. The Horticultural section utilizes a small area unfortunately somewhat lowlying near the buildings site. The object of this is to collect some of the finer fruit bearing species of the Province and to introduce such others as reasonably may be expected to become acclimatized and productive. In course of time it should be possible to give horticultural instruction such as budding, grafting, etc., to suitable students. The Farm is also a centre for the distribution of improved seed and implements under the Agricultural Advance.

atkôn arm.

The Tatkôn Farm had its origin in the renting of a small piece of land in 1912 and 1913 for work on the classification of the sesamum types of the Province and for experiment with Cambodia cotton obtained from Madras. In 1914 forty five acres of land were acquired and the Farm was opened for the improvement of dry zone crops generally. The work of cotton was transferred to Mahlaing Farm in 1920. In 1923 a further 12·74 acres were added by purchase and in 1927 the Farm was extended by 49·08 acres in accordance with the proposal to initiate cattle breeding here. Tatkôn is on the border between Lower Burma and the more sharply defined Dry Zone. The farm soil is a very fertile sandy loam and the normal rainfall is about forty inches falling chiefly from May to November.

The early work on Burmese cotton was marked by the successful isolation of a white flowered strain of the indigenous *Wagale* with a ginning percentage of 42 per cent. which was superior to the local crop by some 5 per cent. to 6 per cent. In 1916 sugar-cane cultivation was introduced and the area of this crop in the vicinity greatly extended. The work on sugar-cane has continued on the Central Farm at Pyinmana since 1925. Under the Agricultural Chemists (Mr. F. J. Warth and later Mr. J. Charlton) the investigation into the Hydrocyanic content of the Burma Bean or Rangoon White bean (Burmese *pèbyugale*) was carried out largely on

material grown on this Farm. As continued selection proved of no value in reducing this content this work is now being followed by a study of pulses suitable to replace the above bean in the export market. A promising substitute appears to have been found in the Egyptian Lima of which some trial shipments have been marketed very successfully in London. From the Farm short lived erect growing types of groundnuts have been added to the local husbandry permitting new rotations with this crop and jowar or other pulses onions or tobacco. Throughout its existence the Farm has been used as a seed farm for supply to the District of selected strains of local crops of which apart from those already noted the following may be named *matpè*, *pèdisein*, *pèsinngon* jowar and gram of which the wilt resistant Karachi strain now forms the bulk of the crop in Pyawbwè Township.

More generally the farm has been utilized for the demonstration and sale of improved but simple and inexpensive implements suitable for local use and for the demonstration of improved methods which may be incorporated readily in local practice. In the cultivating season *bonâ fide* cultivators are received for short courses of practical instruction in these methods. A rest-house for such cultivators and other visitors from the villages is provided.

The most interesting development, perhaps, is the initiation of cattle breeding operations on this Farm which was undertaken in 1927 and 1928. The object is to rescue the hardy and spirited indigenous plough cattle of Burma from complete mongrelisation through promiscuous and uncontrolled crossing with inferior strains maintained for milk production. It is proposed to build up a large herd of superior animals of the Burmese breed from which a high class of stud bull will be distributed. It is hoped also to give a lead to others in an important section of the Agricultural industry which is practically non-existent at the present time. In the few years which have passed since this work was begun a large number of young stock have been obtained in the dry zone districts. These have responded very satisfactorily to improved but quite elementary treatment on the Farm. It may be claimed safely that the existing herd of Burmese cows is unequalled elsewhere in the Province. Male stock of an equally high class have more difficulty to secure but a few good stud bulls have been obtained and some of the early calves are distinctly promising. This work, however, is essentially of a long range nature.

PART II.

Irrigation.

Introductory. The Yamèthin District forms a Subdivision of the Meiktila Irrigation Division within the Superintendence of the Southern Irrigation Circle. The Local Staff consists of a Subdivisional Officer, two Overseers, two Canal Inspectors and seven Canal Surveyors.

Government Irrigation Apart from the Ela Bund which is the only work maintained by Government in the Pyinmana Subdivision, Government irrigation is confined to the Yamèthin Subdivision. Excluding the Ela Bund, the area irrigable from Government Works is about 61,000 acres of which about 20,700 acres are indirectly irrigated with surplus water.

Kyauksè Tank. The Kyauksè Tank is situated about 7 miles east of Pyawbwè. The catchment area is about 198 square miles and the tank is fed by the Samôn *Chaung*, the surplus water of the Shweda *chaung*, and water from the eastern hills. It is said to be of great antiquity and its origin is ascribed to one of the mythical kings of Burma. The historical existence begins with the year 1200 B.E. (1838 A.D.) when the bund was cut to allow the progress of the royal barge from the Yamèthin Lake down the Samôn to the Irrawaddy. The tank bund was repaired again in 1285 B.E. but seems to have breached again very shortly. King Mindon Min decided to repair the bund once for all and promised Rs. 30,000 from the royal Treasury. Arrangements for the repairs were being made when unfortunately Mindon Min died and nothing was done. It remained in a breached condition till the British Government took it over and repaired it about 1892.

In Burmese times it consisted of a bund thrown across the Samôn River, flood waters being diverted round the flank of the bund into the Samôn again. This escape was protected with rough stone pitching hence the name Kyauksè or Stone Weir. It probably irrigated about 5,000 acres when it was in working order (which seems to have been seldom).

The present bund is about $2\frac{3}{4}$ miles in length with an average height of 15 feet. Three masonry sluices furnish outlets for irrigation water. Two of these have remodelled distributaries below them while the third discharges into an old Burmese Channel across which *pindahs* have been erected. The tank bund has an escape weir with falling shutter 200 feet long at its Eastern end. The escape channel is a dug channel about half a mile long discharging into the Samôn. There are two masonry falls in the escape channel and one of

the remodelled distributaries is taken under it as a syphon. This tank irrigates about 5,900 acres directly and an additional 1,100 with surplus water. But, in spite of the three sources of supply, irrigation from it is very uncertain and the irrigated area has varied from over 9,000 acres to 1,500 acres and in one year to nothing.

Thitsôn Irrigation System.

The Thitsôn *Chaung* irrigates a wide area by means of six chief works.

Hteinnyetkon Weir and Canal.

The Hteinnyetkon Weir is the first of these works and is situated about 9 miles northwest of Yamèthin. It is an old Burmese weir taken over and remodelled by the Government towards the end of the last century. The weir has twice been rebuilt since then but was again completely damaged by the 1926 floods and after that it has not been rebuilt. Investigations are being made for making a reservoir higher up the Thitsôn, as the average life of a weir at Hteinnyetkon is found to be only about 10 years. This reservoir will in addition to irrigating lands previously irrigated by the Hteinnyetkon Canal, also store up water to regulate the irrigation of lands at present irrigated by works below. This proposed work is the first step in the remodelling of the Thitsôn System of Irrigation.

The Hteinnyetkon Canal takes off above the Hteinnyetkon Weir on the right side of the Thitsôn. The head regulator of this Canal is the only one in the Province that is not at right angles to the Weir. The main canal or Myaungmadaw is about 5 miles long and has numerous falls on it. Five distributaries take off from it known as the Zidaw, Leingan, Thigon, Kyaung and Shan *Myaungs*.

There also used to be a weir called the Bo *sè* said to have been contructed under the auspices of one of Mindon Min's road patrol leaders and another distributary called the Milaunggon *Myaung*. The Hteinnyetkon system is not in working order at present but it is supposed to command an area of 4,547 acres directly and to irrigate an additional 678 acres by surplus water.

The Gonbin Weir and Thayetpin Canal.

The Gonbin Weir is the second weir on the Thitsôn and is situated about 4 miles south south-west of Pyawbwè. It was constructed by Government in the early years of the present century. It consists of a masonry weir 120 feet long with falling shutters and a pitched glacis and apron.

The Thayetpin Canal takes off from the left bank of the Thitsôn immediately above the Gonbin *sè*. The head regulator has three openings of 6 feet each. After a short distance the canal divides into the Thonbinzin and Thayetpin distributaries and from the latter another branch called the Kinmungyun distributary takes off a little further down.

All the distribuaries have a number of masonry falls. Above the Gonbin weir there are flank bunds on both banks of the Thitsôn to keep it in its course. This system irrigates about 3,000 acres and the surplus water falls into the old bed of the Thitsôn under the railway line two miles south of Pyawbwè and thence finds its way into the Mindan tank.

he Vetmasut 'anal and Vadi 'ank.

Prior to 1926 the Wetmasut *Myaung* had to take off from the right bank of the Thitsôn, above the Pauktan Weir which was about a mile below the Gonbin Weir. The Pauktan Weir was an old Burmese Weir taken over and reconstructed by the Government in 1914—16. The weir was washed away in 1926 and never rebuilt. In 1928 a head regulator with two spans of 5 feet each was built in the right bank of the Thitsôn about 1,500 feet above the Gonbin *sè* and a feeder cut dug from this regulator to join up with the old Wetmasut *Myaung*. This arrangement gives enough water to the latter *Myaung* and the cultivators in the locality are much happier than before. The Wetmasut *Myaung* is about 2 miles long and irrigation is carried out all along its length by means of pipe outlets, until it finally disappears in the Wadi Tank.

The Wadi Tank is an old Burmese Work taken over and improved by the Government. The tank bund is about 1½ miles long and has two masonry sluices in it. Irrigation below the sluices is done through old Burmese channels.

The Wetmasut *Myaung* irrigates 2,555 acres directly and the Wadi Tank 1,687 acres. The surplus water from the Wadi Tank irrigates an area of 3,575 acres.

'he idaw Veir and nbin *[yaung.*

This weir is further down the Thitsôn and about 2 miles north of Pyawbwè. It is a very flimsy type of weir consisting only of a cribwork of stone. The Onbin *Myaung*, which takes off towards the north from above this weir, has an open head and most of the water that comes down the Thitson is now finding its way into it. The Thitsôn after flowing past the Zidaw Weir enters the Mindan Tank.

The Zidaw Weir and the Onbin *chaung* directly irrigate an area of 3,572 acres.

he Iindan 'ank.

This is the last work on the Thitsôn and is situated just east of Pyawbwè Town. This tank is also fed by the Zwe *chaung* which comes from near Yanaung. This is also an old Burmese work taken over and improved by Government. The tank bund is about 1½ miles long and has three sluices in it for irrigation purposes. The escape weir of the tank is 220 feet long. This weir has falling shutters on it. There is a drop of 12 feet from the top of the Weir to the pitching below it. The weir is continued in the escape channel also by means of a sloping glacis and apron. The fall in level from the top of the escape weir to the apron is 19 feet.

The tank is now entirely silted up and has no storage capacity at all. It irrigates an area of 5,752 acres directly and 6,840 acres indirectly.

The escape channel of the Mindan Tank joins the Samôn further north and then the two together find their way into the Meiktila District.

This is a permanent weir built across the tail end of the Onbin *chaung* known as the Yelègwe *Myaung*. The weir is of the ordinary type, falling shutters, a sloping glacis and apron. Above this weir two distributaries called the Gwebinyo *Myaung* and Aungbintha *Myaung* take off on either side. The Aungbintha *Myaung* has a masonry regulator at its head, but the Gwebinyo *Myaung* has not. The Kame Weir.

All the surplus water from the Wadi Tank and some tail-end water from the Kyauksè Tank falls into the Yelègwe *Myaung* and is thence carried forward to the Kame *sè*. The Kame *sè* was built by Government in 1916. Before this, the villagers had to erect temporary weirs every year. They found this very difficult particularly as there was not much unity among them and they applied to the Government for help and this weir was the result.

The supplies to this weir are very uncertain and so there is no direct irrigation from it. Whatever irrigation is done is classified as indirect irrigation and the area so irrigated is about 1,900 acres.

The Bomba Weir is a masonry drop weir, with falling shutters, across the Shweda *chaung* about 7 miles north-west of Yamèthin. From the old Hteinnyetkon Canal there was a channel leading to this weir, but this is not functioning now and the only supply of water is from the Shweda *chaung*. From the Shweda *chaung* above the weir a channel called the Kadin Feeder Channel is dug and this connects the Shweda *chaung* with the Kadin Tank. In order to prevent too much water getting into the Kadin Tank, a masonry regulator is built across the Kadin Feeder Channel. This regulator has two openings and is regulated by gates. The Kadin Tank Bund is just over a mile in length and has 2 sluices in it. There are no regular distributaries below these sluices and irrigation from the tank is done through old Burmese *Myaung*. The Kadin Tank is an old Burmese Tank and in the Burmese days the Kadin headman was the *Kan-Ok* and the Ingyingan headman the *Myaung-gaung*. This tank has got an escape weir of loose stones. The Shweda Irrigation System. The Bomba Weir and Kadin Tank.

The Kadin Tank and the Bomba Weir irrigate 2,767 acres directly and 5,200 acres indirectly.

The Kyeni Tank is situated on the eastern outskirts of Yamèthin Town on the watershed of the areas drained by The Kyeni Tank.

the Samôn and Sinthe Rivers and actually at the highest point of the line between Mandalay and Rangoon. It is an old Burmese work taken over and remodelled by Government towards the end of the last century. In Burmese times it had two bunds, one on the north and one on the south each about 2 miles long. There were two solid brick masonry sluices in each bund. There was no proper escape but flood water was permitted to flow away along the high ground round the eastern flanks of the bund. The tank irrigated about 5,000 acres when in good order.

This tank, which has a spread of about 2 square miles, is formed by two bunds running east and west, each 9,000 feet in length. The northern bund lies across the valley of the Samôn, the southern bund across the Nawin-Sinthe Valley. The northern bund has three masonry sluices from each of which a distributary takes off, and an escape weir 100 feet long with falling shutters. The escape channel is a dug channel and joins the Samôn half a mile below the tank. Along the south bund there are two masonry sluices but there are no regular distributaries below them and irrigation is through old Burmese *Myaungs*.

The supply channel is the Myaungmadaw which draws its water from the numerous *chaungs* which fall into the plains from the Shan Hills near Ye-u 12 miles south-east of Yamèthin. Irrigation by means of pipes is carried out along the Myaungmadaw in which there are two falls and the take off of a minor channel called Hteingan. But the Kyeni tank has the first rights over the water and lands irrigated from the Myaungmadaw have to wait until there is a sufficiency of water in the Tank to meet agricultural needs.

The Kyeni tank and Myaungmadaw Canal together irrigate 7,100 acres directly and 1,400 acres indirectly.

Out of the Kyeni Tank the Samôn flows northwards into the Kyauksè Tank and the Nawin Southwards into the Sinthe River.

Yindaw and Myinmi Tanks.

The Yindaw and Myinmi Tanks are situated close to Yindaw and are the only works maintained by Government in the Yanaung Township. The Yindaw Tank covering about a mile square has badly silted up and is largely used for the cultivation of *ya* crops. Its bund is over 2 miles long with 3 sluices and some pipes. There is an escape at each end of the bund. All the water passing through the southern escape goes into the Myinmi Tank which is also fed from the Yindaw Tank by wooden pipes. The Myinmi Tank bund is nearly a mile long with a few pipes in it and a loose stone escape weir at the end. There are no regular distributaries below the sluices and pipes, irrigation being carried through

old Burmese *Myaungs*. Owing to the amount of silt the storage capacity of both tanks is very poor and in time of heavy rain there are serious breaches causing much damage to paddy. The area irrigated from these two tanks is about 3,900 acres.

The Ela Bund.

The serious flooding of the area in the angle of the Sittang near Ela has been mentioned in Chapter I. As a protection against this, the Ela *Myothugyi* in the early years of the present century, constructed a short bund about a mile long across the angle at Yonbinsaung village. This bund was badly breached in 1915 and the matter was then taken up by Government. Various schemes were examined and finally Government took over the old bund and extended it as far as Ela to the north-west and southwards to Thitkhokwa near Alègyun. This is the only Government work in the Pyinmana Subdivision. The length of the present embankment is about $7\frac{1}{2}$ miles and it affords protection more or less to some 8,000 acres. Lands so protected pay an additional rate of As. 12 per acre. To enable cultivators to take water to their fields 16 pipes are provided in the embankment at intervals along its length.

Private Irrigation Works. Minor Canals Act.

Most of the more important of the private irrigation works have been notified under the Minor Canals Act. In this case, a *sè-thugyi*, who is normally the village headman is appointed by the Deputy Commissioner. He appoints such assistants as he requires and they are called *myaung-gaungs*. A *Myaung-gaung* is generally appointed for each village which uses the water from the *sè*. Every cultivator using the water is liable to be called on for work in maintaining the weir, the usual rates being one man and a yoke of oxen per 1,000 basket holding. If personal service is inconvenient a substitute can be engaged. The *sè-thugyi* receives an emolument of half a basket of paddy for 100 basket outturn from each cultivator in the irrigated area. He has power to fine defaulters Rs. 5 and is himself liable to a fine of Rs. 50 for failure to perform his duties properly. Fines inflicted by the *sè-thugyis* are credited to a fund used for the general upkeep of the canals under their control. The *myaung-gaungs* receive no emoluments.

List of Minor Canals.

The following is a list of works notified under the Minor Canals Act. A number of those in the Yamèthin Subdivision have become useless chiefly owing to divided counsels and the lack of anyone having sufficient authority over a wide area to enforce the duties of upkeep :—

Yamèthin Township.

1. Chaungmagyi.
2. Kokko *Sè*.
3. Sethit *Sè*.
4. Lame *Sè*.

Yamèthin Township—concld.

5. Pwesa *Sè*.
6. Hnaw *Sè*.
7. Kyaukpya *Sè*.
8. Vaga *Sè*.
9. Patin *Sè*.
10. Mauksan *Sè*.
11. Nyaungbin *Sè*.
12. Okpogan *Sè*.
13. Mayingan *S* .
14. Pon *Sè*.
15. Htamon *Sè*.
16. Nwado Tank.
17. Palaw *Sè*.
18. Gwebin *Sè*.
19. Nattaga Tank.
20. Nwagu *Sè*.

Pyawbwè Township.

1. Tayanga *Sè*.
2. Pauk-Kyin.
3. Kekka *Sè*.
4. Magyibin *Sè*.
5. Letsegan *Sè*

Yanaung Township.

1. Hnasin *Kan*, Upper.
2. Hnasin *Kan*, Lower.
3. Nwadat *Sè*.
4. Wayindok Tank.
5. Letpanchibaw.
6. Thu-yè *Sè*.
7. Pinda *Sè*.
8. Ngaponthe *Sè*.
9. Chaunggauk.
10. Zwe *Sè*.
11. Yanaung *Sè*.
12. Yongon.
13. Teinde *Kan*.
14. Kyauksè.
15. Kyini.
16. Hnangon Tank.
17. Nganzin Tank.

Pyinmana Township.

1. Magyigon *Sè*.
2. Kyogon *Sè*.
3. Yezin *Sè*.

Lèwè Township.

1. Pyilonchantha *Sè*.
2. Thebyu-Mayo-In *Sè*.
3. Shagyaung *Sè*.
4. Wetkamu *Sè*.
5. Ela Tank.

Yamèthin Subdivision.

In the Yamèthin Subdivision the most important private irrigation works are those on the Mon, Nyaunggaing, Nawin and tributary streams which irrigate some 21,000 acres in Settlement Tract No. 14 in the south-east corner of the Subdivision; the various streams which combine to irrigate some 8,000 acres in Settlement Tract 12 north of the Myaungmadaw, and the Chaungmagyi system in Tract 5 of which the following account is given by the Settlement Officer :—

The first work on the Chaungmagyi is the Tayanga Weir.

This is the largest private weir in the Settlement Area. It is constructed near Tayanga village and is under the charge of the *thugyi* of that place. The height of the weir is about 10 cubits and its length is estimated at 3,000 *pe* with a

yegyaw of some 3,000 *pe* on the west. The work of raising the sand bund starts in *Tagu Thingyan.* Roughly about 70 harrows are called out for the first construction but later on in the season, when the work breaks, and time is pressing, a larger number may be found working.

The following is an account of work on the weir in 1926 :—

"Work started at *Thingyan* and went on for over a month. In *Nayon* about half the bund was carried away. This took 15 days to mend. In *Wagaung* it broke again, once at the beginning of the month and once at the end. These breaches took from 7 to 10 days to mend. Until *Tawthalin* there was no work owing to the drought. In *Tawthalin* there was trouble over the *ye kaloks.* This was at planting time, when water was vital. In *Tawthalin Labyigyaw* there was more heavy rain and about half the bund broke down, and continued breaking until the beginning of *Tazaungmon.* Sometimes as many as 100 harrows were working. During these two months the work was very heavy owing to the constant breaches. But after that there was no more work, as the water was sufficient. In normal years the work goes on till later."

The bund is constructed annually by the villagers of Tayanga, Nyaungshwe, Nanchun, Maungdon, Nyaungzauk, Okchobin, Thabyebin, Kanu, Kyetthungin, Tantabin, Thazi, Ywathit and Shwebandaw. The irrigated area is about 1,150 acres. The scale of work supplied is said to be one harrow and yoke for every 20 baskets sown.

Below this is the Thayè-Letpanchibaw Weir system. Both weirs are now breached. The history of these weirs is said to have been as follows :—

In early Burmese times it is said that the Thayechaung, a local name for the Chaungmagyi, was bunded at the Letpanchibaw and as much as 12,000 *dingyè* irrigated from it. In B.E. 1227 the Thuyè Wun Min arrived and as a result of a request from cavalry troops stationed near here that they should be given lands to an extent of 200 *myo gyè,* he breached the Letpanchibaw and constructed the Thayè *Sè.*

In 1252 after the annexation, the Nyaungshwe villagers petitioned that their lands should get a share of the water. Government then breached the Thuye *sè* at a big cost and a *yegyaw* was made. For 5 or 6 years after this, Nyaungshwe people got water but the land originally irrigated from the Letpanchibaw *sè* went dry. Objections were then raised that ever since early Burmese times the Nyaungshwe land had been excluded from the rights of water. The Thuyè *Sè*

Pauk Yegyaw was then closed. At this time the supervision of the Letpanchibaw *sè* was in the hands of the *Myothugyi* of Chaungmagyi. This was a large *Myothugyiship* but on his death it was split up, and as a number of minor *thugyis* took over, there was no one with authority and the Letpanchibaw *sè* became obsolete. Then in 1284 it was decided to make another attempt at getting the *sè* into working order. This was done, for one year but subsequently it was not made owing to lack of authority. The weir is in the control of headmen of Pinda, Gwein, Chaungmagyi, Chaunggangyi, Tamagon, Kandè, Kyini and Sadaung.

The area which might be irrigated from this weir together with its subsidiaries the Pintha and Ngaponthe *sès* is between 4,000 and 5,000 acres. Practically the whole of this very fertile area is *ya* land. The irrigated area would extend from near Gwein village almost up to Sadaung. Cultivators are anxious that the working of this weir be taken over by Government.

'yinmana Subdivision.

The most important irrigation work in the Pyinmana Subdivision is the Beikpeinbaung weir which has not been notified under the Minor Canals Act. It was erected in 1861 by Maung E Maung, *Myothugyi* of Pyinmana, to replace the dam on the Ngalaik which had been built by his father, Tha Dok Gyi some twenty years earlier and had been breached by an accummulation of teak logs resulting from King Mindon's decision to exploit the Pyinmana Forests in 1859. The work was done by the joint effort of the cultivators concerned and has since been maintained by the same means. The weir is an earthern bund of moderate dimensions strengthened by wooden posts. It directs the waters of the Bugwè stream along an artificial channel, on which there is no gate or sluice, irrigating some 17,700 odd acres in that part of the Pyinmana Township which is bounded on the north and east by the Ngalaik, Sinthe and Sittang. A natural storage reservior is provided by the Beikpeinbaung *In* through which the Bugwè stream flows a short distance above the weir. The legend of Beikpeinbaung is given in Chapter XIV.

The most important work in the Pyinmana Subdivision notified under the Minor Canals Act is the Pyilonchantha Tank which though it yields to the Beikpeinbaung Weir in the extent of the area which it irrigates, is a larger and more expensive work and has aroused greater general interest. It was constructed in the years 1897 to 1899 by hired labour under the superintendence of Maung Pu Le, A.T.M., who was then Township Officer of Lèwe, and Maung Oktama a timber trader of Mweyogyi. The work consists of a bund across the Ye-aung stream, a tributary of Palwe, which

diverts its water through a canal into the Sinon Tank which was formerly a marsh called Chin-ôn from the number of mosquitoes infesting it. The water is held up here by an embankment along the south of the tank 2,700 feet long with two small bunds at the extremities to prevent overflow at the sides. Near the eastern end of the embankment is a masonry sluice with iron shutters by which the flow of water is regulated. But like most unofficially managed works it is frequently in disrepair. The tank irrigates directly or indirectly an area of 10,500 acres in the part of the Lèwe Township bounded on the south and east by the Yonbin stream and the Sittang. The water from the tank is reinforced in the lower part of its course, by the Nyobin stream which drains the Yanaungmyin Forest Reserve.

The Shagyaung Weir which irrigates an area of 4,400 acres between the Yeni and Yonbin streams was constructed by joint effort under the superintendence of the Lèwe headman more than ninety years ago. The original work was too short and low and fell into disrepair and eventually in 1919 it was lengthened and strengthened. It now consists of an earthen bund some 1,100 feet long behind which is a tank fed from a series of marshes which collect drainage from the east corner of the Minbyin Forest Reserve. Water is discharged to the east and north-east through three openings; the main canal leading from the northern end of the bund and two smaller gates with wooden doors near the southern end.

The Ela Tank is situated just south of Ela Railway Station. It is a fairly extensive sheet of water into which falls the drainage of the Ela Fuel Reserve. On the east there is an embankment about 2,000 feet long constructed some 60 years ago by the cultivators interested under the direction of the Ela headman. Water is delivered through it by wooden pipes and irrigates an area of 713acres between it and the Ela Protective Bund.

By means of a series of works mostly constructed on the initiative of the Yezin *Myothugyi* and under his supervision the Yezin *chaung* irrigates over 1,600 acres in that part of the Pyinmana Township which lies south of the Yezin-Kyidaunggan Road and between the Sinthe and Sittang.

Of the other works notified as Minor Canals the Magyigon *sè* and the Gyogon *sè* irrigate some 700 acres and 400 acres respectively in the extreme north-east corner of the Subdivision. With the Yezin system they are probably the best managed of the private irrigation works in the districts and are undoubtedly of some antiquity. Wekkamu *sè* is of little importance and is connected with the Pyilonch antah

system. The Thèbyu-Mayo-in system is practically derelict.

Of the numerous other irrigation works which have not yet been notified under the Minor Canals Act the most important are the Ziyaing *sè* which irrigates some 1,300 acres near Kadozeik east of the Sittang, and the Mazi system which irrigates over 700 acres near Tègon on the Trunk Road.

CHAPTER V.

Forests and Minerals.

Area of Forest.

Of the 4,178 square miles of the Yamèthin District reserved forests occupy 1,544 square miles and unclassed forests 1,794 square miles, leaving a balance of 840 square miles without tree growth. Originally the Yamèthin District and the Pyinmana Forest Division were identical. But the great expansion of forest work consequent on the opening up of the Pyinmana-Taungdwingyi Railway necessitated the formation of two forest divisions. With effect therefore from the 1st April 1926 the old Pyinmana Forest Division was split up into the Pyinmana Forest Division and the Yamèthin Forest Division, the boundary between them being drawn for the most part along the Ngalaik stream.

History, (*a*) Pre-annexation.

Nothing appears to be known of the history of these forests before the reign of King Mindon when the utilization of his forest wealth formed part of that enlightened monarch's programme of modernization. A *Thittawwun* was placed in charge of all the forests of the District. This appears to have been a reasonably profitable office as the successful candidate was expected to pay the King a sum of Rs. 2,000 to Rs. 3,000 on his appointment. Under this régime the exploitation of the forests was definitely undertaken and in 1855 a trader called Louis began to extract teak from the Pyinmana forests but probably only for consumption in the towns along the Sittang River. In 1858, however, Mindon Min took the working of the forests into his own hands and timber was sent down to the frontier of British Burma and there sold. The chief purchasers during the period were Messrs. Chrisman, McToon and Wallace who later worked as *Thitgaungs*. In 1867 Mr. William Wallace, who had obtained a lease in the preceding year, formed the Bombay-Burma Trading Corporation Limited, to take over his business.

Messrs. Darwood and Goldenberg were sent up as agents—(Darwood and Company had been early lessees)—but in 1880

the Corporation took over the direct management under their first lease and were granted land south of Ningyan Town where they erected houses and offices. Under this lease royalty was to be paid at a fixed rate per ton. But when Mr. Francis Walker, Darwood's partner, applied for a lease to work the rejected and short logs the Corporation were fain to ask for an amendment of their contract and under their second lease (of 1882) agreed to pay to the King a lump sum of Rs. 1 lakh per annum for the right to extract unsound timber and timber of less than 4½ feet girth and 18 feet length which they had been entitled to reject under their former lease. Messrs. Darwood and Goldenberg had made strenuous efforts to obtain the lease for themselves and the Corporation was compelled to lend large sums of money to the King in order to obtain this second lease. Extraction, however, was hindered and delayed in various ways, largely because the foresters were continually being called away in the dragging season to give evidence in petty cases.

In 1883 a third lease was made. This was for 10 years and under it the Corporation agreed to pay Rs. 3½ lakhs per annum for all superior timber and Rs. 1 lakh for all inferior timber extracted. From the beginning, however, matters went far from smoothly. King Thibaw was now on the throne, disorder was rapidly increasing, and such efficiency as had been introduced into the administration by King Mindon was rapidly disappearing. Under these circumstances the Corporation naturally had many causes of dissatisfaction with the Burmese officials. For example when 76 elephants valued at Rs. 1½ lakhs were stolen and were known to be on their way to the Shan country, although the Corporation's agent made an urgent application to the Ningyan *Myowun* for the immediate pursuit of the dacoits, the *Myowun* abstained from taking any action even though the Corporation offered to repay all expenses incurred. The Corporation on their side were no doubt not altogether guiltless of breaches of their contract, but the King's method of prosecuting them and the fines imposed were quite unjustifiable.

The Ningyan officials were supposed to make out annually a list of logs extracted. The court officials ignored these figures and accepted figures for logs reaching Toungoo which included many logs which had been extracted under the old contracts. They also confused contracts, counted thousands of logs twice over, included short and undersized logs and accused the firm of bribing the Governor of Ningyan with Rs. 60,000. The Taingda *Mingyi* persuaded three of the firm's dismissed foresters to go to Mandalay and lay a false complaint. The case was tried without any opportunity

being given to the Corporation of entering a defence. The two main charges were :—

(1) Working 40,000 logs in 1883-84 and 40,000 in 1884-85 but only paying royalty to Mandalay on 32,000.

(ii) Non-payment of wages to the complainant *Thitgaungs* who with their complaint had filed statements of logs reaching Toungoo and Shwegyin.

A further source of discord was the refusal of the Corporation early in 1885 to make any further loans to the Burmese King. Previous contracts had only been obtained by large loans to the King but as none of these had been repaid the Corporation decided to discontinue the practice. Thibaw was much chagrined to find later that the royalties obtained under the firm's contract did not make up this loss. Finally on August 23rd, 1885, Thibaw ordered the Corporation to pay a fine of Rs. 23 lakhs to his Government and Rs. 5 lakhs to his foresters. The French Consul at Mandalay, M. Haas, at once offered to take up the contracts for the " Toungoo, Yamèthin, Thitkyeikgyi and Koywa forests on both sides of the Paunglaung ".

The Corporation's agent in Mandalay, M. Andriano, managed to obtain and forward to Rangoon a copy of the agreement into which it was proposed that the Burmese and French Governments should enter. The terms of this were immediately cabled to London and the British Government presented a formal protest before the actual agreement had reached the French authorities in Paris. Deeming Thibaw's answer to this protest unsatisfactory the British Government presented him with an ultimatum to which Thibaw replied with an order to his three armies to drive the English into the sea and War broke out. The English* employees of the Corporation were ordered to return to Toungoo which they reached on the 31st October 1885.

Annexation.

After the annexation of Upper Burma the revenue derived from forests was collected under executive orders of the Chief Commissioner until March 1887 when forest administration was placed under one Conservator, whose " Circle " was divided into six divisions or executive charges. On April 1st, 1892, this Upper Burma Circle was divided into the Eastern and Western Circles, which, after a redistribution on November 1st, 1894, were changed into Northern and Southern

* At this time there were at Ningyan 9 European employees of the Bombay-Burma Trading Corporation, Limited, namely :—Messrs. F. Winser (Manager), H. Ross, A. D. Kiernander, H. Hall, F. H. Lyle, F. C. Nisbet, J. E. McMaster, J. F. Bruce and E. N. Sergent. Nisbet died in 1894 and his grave is in the old cemetery at Pyinmana.

Circles. Owing to the steady development of forest work and administration an additional circle was eventually required and on December 5th, 1921, Upper Burma was divided into three circles called Northern, Chindwin and Central. The Yamèthin District falls within the Central Circle.

The Pyinmana Division was one of the six original divisions and, except for a few minor changes, remained practically unaltered until 1926 when it was divided into two divisions as already stated. The first Divisional Forest Officer, Mr J. Copeland, arrived in Pyinmana on May 19th, 1887.

The British Government having recognized the last lease obtained by the Bombay-Burma Trading Corporation from King Thibaw, the first problem before the Forest Department was to obtain a rough estimate of teak stocking so as to ensure that the lessees should be able to get their required annual output without making too heavy inroads on the forest capital. The Divisional Forest Officer in his report for 1887-88 stated that the average annual outturn during the preceding decade had been 29,000 logs (29,800 tons) and that as a result of his valuation of the forests he had come to the conclusion that girdlings were already more than sufficient to supply an estimated annual outturn of 50,000 logs during the remaining nine years of the lease.

Valuation surveys carried out during the next five years confirmed this conclusion and showed that girdling had been excessive.

Simultaneously with these valuation surveys, protected forests were begun. These were described by the Divisional Forest Officer in his Annual Report for 1887-88 as " Extensive undemarcated forest tracts protected by the rules under Chapter IV of the Upper Burma Forest Regulations from which the reserves of the Divisions will be selected."

Such protected forests were :—

Pyinmana District	Ngalaik	100 square miles
	Taungnyo	130 ,, ,,
	Pozaungdaung	80 ,, ,,
Yamèthin District	Sinthe	Unknown
	Myohla	20 square miles
	Shwemindin	20 ,, ,,
	Kyinsu	20 ,, ,,

In the Yamèthin District the area actually protected was, however, 187 square miles of which about half was cutch-bearing and one-fifth teak-bearing. The next step was the formation of reserves and a list of reserves with dates of notification and areas is given later in this Chapter.

In December 1900 the lease of the Bombay-Burma Trading Corporation, Limited, after several extensions, finally

expired. In the working plan of the Ngalaik Reserve (1902—04) Mr. G. E. S. Cubitt wrote : "One of the most difficult problems left to the Forest Department by the Bombay-Burma Trading Corporation, Limited, at the end of their lease was how to dispose of the rejected teak timber which they left littering the forests in all directions. The quantity is so large and the average quality so poor that it is sometimes difficult to dispose of the logs that have already been extracted, and large stocks are now accumulating in Pyinmana and other convenient stations on the railway.

At the same time the rejected timber left in the forests represents a very large sum of money which the Forest Department ought not to allow to be lost."

For a time, therefore, after 1900 no new teak leases were issued and the logs rejected by the Corporation were extracted departmentally. The immediate effect of this procedure on the revenue is indicated by the following figures :—

Revenue.

1901-2	1902-3	Average for 5 years, 1897—1902.
Rs.	Rs.	Rs.
1,76,878	1,87,677	12,50,026

This fall in revenue is explained by the Divisional Fores Officer Mr. C. E. Muriel in his Annual Report for 1902-03, "In comparing the figures of the year with the average of the previous five years the fact that owing to the excessive girdling of teak just before the annexation of Upper Burma, enormous stocks of dead teak were extracted must be remembered. The revenue up to 1900-1 was obtained at the expense of the forest capital. The revenue of the year (1902-3) is below the normal revenue which will be yielded by the forests when extraction under the provisions of the working plans is steady. The normal revenue will then be about six lakhs until the forests have recovered from the effects of over working when a very much increased revenue will be obtainable." Revenue figures for recent years will be found later in this Chapter.

Working Plans. The earliest working plan parties took the field in the main reserves in 1900 and thereafter from time to time working plans were compiled for the various reserves. These were combined in 1922-23 into one plan which was sanctioned from May 1923.

Field work for a more detailed working plan for the Pyinmana Division for the period 1927-28 to 1936-37 was completed in 1927 and the plan sanctioned with effect from May of that year. A similar plan for the Yamèthin Division for the period 1930-31 to 1939-40 was compiled in 1931.

These plans make full provision for the working and improvement of the forests. The principal prescriptions are for girdling of teak ; marking of other trees for extractions ; provision of fuel, house posts, etc., for local village supply ; measures for improvement of the forests, such as—improvement fellings, climber cutting, formation of plantations and subsequent tending thereof, road making, for purposes both of communication and of exploitation, building of rest-houses in suitable places ; and in fact for all measures for maintaining, improving and working the forests.

Administration.

Except that a small area of the Toungoo District is included in the Pyinmana Forest Division, the external boundaries of the two forest divisions are indentical with those of the Yamèthin District. The Yamèthin Forest Division is bounded on the north by the Meiktila Forest Division, on the east by the Southern Shan States Forest Division, and on the west by the Magwe Forest Division. The Pyinmana Forest Division is bounded on the east by the Southern Shan States Forest Division, on the south by the North Toungoo Forest Division and on the west by the Allanmyo and Magwe Forest Divisions.

The boundary between the Yamèthin and Pyinmana Forest Divisions is defined as follows :—

From the point where the watershed between the Palwe and Ngalaik streams joins the western boundary of the Yamèthin District on the Pegu Yoma, south-eastward along the said watershed to the north-west corner of the Kaing Reserve ; *thence* the northern boundary of the said reserve to where it meets the eastern boundary of the Ngalaik Reserve ; *thence* the latter boundary to the point where the Ngalaik stream leaves the Ngalaik Reserve ; *thence* the Ngalaik stream to its mouth ; *thence* the Sinthe stream to its mouth ; *thence* up the Paunglaung river to the mouth of the Lwegyi stream on the eastern boundary of the Yamèthin District.

Legal Position.

The following are the reserved forests in the Pyinmana and Yamèthin Forest Divisions with their particulars. In most cases the original notification has been subsequently amended to provide for an increase or decrease in area, the cancellation of certain rights and other matters. Details can be found in the working plans.

Pyinmana Division.

Name of Forest.	Present area in sq.miles.	No. and date of Notification constituting Reserve.	Remarks.
West Bank.			
1. Palwe ...	152	No. 300, dated 7-12-1891.	
2. Kaing ...	21	No. 299, dated 7-12-1891.	
3. Yanaungmyin	20	No. 298, dated 7-12-1891.	
4. Yonbin ...	127	No. 306, dated 7-12-1891.	
5. Minbyin ...	205	No. 305, dated 7-12-1891.	
6. Kyaukmasin	42	No. 82, dated 23-9-1881.	
Do.	...	No. 159, dated 18-7-1923	Minbyin extension now included in Kyaukmasin reserve.
7. Yeni ...	101	No. 58, dated 16-4-1890	Saing-Yane reserve.
Do. Extension I		No. 363, dated 3-9-1903	
Do. Extension II		No. 160, dated 18-7-1923	
8. Ela Fuel ...	5	No. 224, dated 18-6-1902	
9. Yonbinsaung Elephant Fodder.	4	No. 135, dated 7-8-1916	Separated from Paunglaung Fodder reserve.
East Bank :—			
10. Paunglaung Elephant Fodder.	21	No. 51, dated 27-3-1913. No. 52, dated 4-4-1916.	
11. Mèhaw Do. extension.	34	No. 35, dated 6-9-1900. No. 188, dated 24-10-1916.	
12. Ziyaing (Nancho)	6	No. 154, dated 10-6-1901	Ziyaing reserve now included in Nancho reserve.
13. Nancho ...	36	No. 147, dated 14-7-1919.	

Yamèthin Division.

Name of Forest.	Present area in sq. miles.	No. and date of Notification constituting Reserve.	Remarks.
West Bank—			
1. Ngalaik ...	126	No. 304, dated 7-12-1891.	
2. Taungnyo ...	106	No. 302, dated 7-12-1891.	
3. Pozaungdaung	81	No. 310, dated 7-12-1891.	
4. Sinthe ...	109	No. 221, dated 19-6-1897	
5. Hlwazin ...	12	No. 237, dated 26-12-1912.	
6. Kogwè ...	36	No. 235, dated 23-12-1912.	
7. Hlwabon ...	38	No. 236, dated 26-12-1912.	
8. Lower Sinthe	44	No. 17, dated 11-2-1913.	
9. Pyinmana Fuel and Fodder.	3	No. 417, dated 20-9-1904.	
East Bank—			
10. Yesin ...	88	No. 58, dated 31-3-1913.	
11. Byingyè ...	76	No. 156, dated 18-10-1909	
12. Natma ...	15	No. 403, dated 11-9-1904.	
13. Nyaunggaing	37	No. 59, dated 31-3-1913.	
		No. 392, dated 8-9-1904	Kyettaw Reserve constituted.
		No. 239, dated 11-10-1924	Kyettaw and Nyaunggaing Reserves combined and known as Nyaunggaing.

Considerable variations of soil, aspect, and rainfall are responsible for the presence within the limits of the District of all types of forest from moist evergreen in the deep ravines of the Yomas to dry scrub in the extreme north. But Class of Forest.

the greater part of the reserves consists of moist upper mixed deciduous forest in the south gradually changing to dry upper mixed deciduous forest in the north. The mixed deciduous forest is the most important and valuable class of forest in Burma. The moist upper mixed deciduous class is characterized by the presence of *kyathaungwa* (Bambusa polymorpha), *tinwa* (Cephalostachyum pergracile), and contains the finest teak (Tectona grandis) and *pyinkado* (Xylia dolabriformis). The passing of the moist into the dry deciduous class is marked by smaller growth and then by the disappearence of *kyathaungwa* and *tinwa* which are replaced by *myinwa* (Dendrocalamus strictus).

In the south of the Pyinmana Division a small area of lower mixed deciduous forest occurs. This type is found on low ground, sometimes alluvial and usually clayey, and is characterized by a scarcity or absence of bamboos, but is usually rich in teak and *pyinkado* of large size. *Indaing*, or deciduous Dipterocarpus forest occupies a considerable area. This type occurs on gravel and sand formations, and almost invariably on laterite when it is of poor quality, and is characterized by a prevalence of *in* (Dipterocarpus tuberculatus) *ingyin* (Pentacme suavis) and *thitya* (Shorea Obtusa).

The Pyinmana and Ela Fuel Reserves and the Yonbin saung and Paunglaung Elephant Fodder Reserves are maintained for their special purposes. In spite of the extinction of all rights in the fodder reserves by heavy cash payments, the neighbouring villagers contrive to render them increasingly unsuitable for elephant grazing by the illegal removal of shade trees and the pasturing of diseased cattle.

Forest Produce.

Long term leases for the extraction of teak are held by the Bombay Burma Trading Corporation, Limited, for the Palwe, Yanaungmyin, Yonbin and Yeni Reserves in the west bank area of the Pyinmana Division and in the reserves of the east bank area of both Divisions ; by Messrs. Steel Brothers for the west bank area of the Yamèthin Division and in the Kaing Reserve ; and by Messers MacGregor and Company in the Minbyin and Kyaukmasin Reserves. Paddy field teak is put up by coupes to tender for shorter periods. Long term leases for the extraction of Hardwoods—especially *pyinkado* are held by Messrs. Steel Brothers for the Yonbin Reserve and by S.V.A.R.A. Alagappa Chettyar for the Ngalaik and Taungnyo Reserves. Hardwoods are also extracted by a number of traders under short term contracts, the areas for extraction being put up to tender in rotation.

Besides teak and *pyinkado*,, the more important species found are *padauk* (Pterocarpus macrocarpus), *in* (Dipterocarpus tuberculatus), *kanyin* (Dipterocarpus alatus and

turbinatus) *ingyin* (Pentacme suavis), *thitya* (Shorea obtusa), *taukkyan* (Terminalia tomentosa), *thingan* (Hopea odorata), *kaunghmu* (Parashorea stellata), *thitkado* (Cedrela Toona), *thingadu* (Anisoptera glabra), *thitka* (Pentace burmanica), *kokko* (Albizzia lebbek), *Yon* (Anogeissus acuminata), *hnaw* (Adina Cordifolia), *pyinma* (Lagerstroemia Flos Reginae), *yemane* (Gmelina Arborea), *sandawa* (Cordia fragrantissima). *Leza* (Lagerstroemia tomentosa), is used for making cheap jaggery boxes.

Didu (Bambax insigne), *letpan* (Bambax malabaricum), *shawbya* (Hibiscus macrephylluss), and *maulettanshe* (Duabanga sonneratioides) are sold for matchwood. *Myaukchaw* (Homalium tomentosum) is plentiful and provides a high quality fuel sold for baking bread or women in confinement.

Formerly extraction of bamboos from the reserves was done under licenses sold by licensed vendors who drew a commission on sales. In 1920 these licenses were abolished and tickets sold in books of 50 were introduced. These tickets are for 50, 100 and 500 bamboos and are sold by vendors on a commission basis. Large quantities are also extracted free by right holders. In unclassed forests they are extracted free but if used for trade purposes have to be covered by tickets. Bamboo.

In 1919 Messrs. Jamal Brothers were granted a concession for 20 years from the 1st January 1920 to extract bamboos over an area of 292 square miles of the Taungnyo, Pozaungdaung, Minbyin, Yeni and Yonbin Reserves. No royalty was payable till 1928 and the bamboos were to be converted into paper pulp at a mill erected for that purpose at Kyidaunggan. In 1920-21 9½ lakhs of bamboos were extracted but in the following year the mill was burnt down and the lease was eventually surrendered in 1925.

The principal bamboos found are *kyathaungwa* (Bambusa polymorpha) and *tinwa* (Cephalostacyhum pergracile). *Myinwa* (Dendrocalamus strictus) is found in the dry upper mixed deciduous forests, *thaikwa* (Bambusa tulda) on clay soils near streams, *wagok* (Oxytenanthera albo-ciliata) by the smaller streams, *wapyu* (Dendrocalamus membranaceus), *wanwe* (Oxytenanthera albo-ciliata) generally on sandy soil in moist forests and *kyalowa* (Dendrocalamus Brandisii) which prefers limestone. Sporadic flowering of *tinwa*, *kyathaungwa* and *wanwe* has occurred in recent years but not to any great extent.

When the original Pyinmana Division was formed in 1887 mature cutch trees (Acacia Catechu, Burmese *sha*) were found in large numbers especially along the Sinthe and in the present Hlwebon and Yamèthin Ranges. There Cutch.

are now few or none. How this result has been achieved is interesting. One of the provisions of the Upper Burma Forest Regulation which came into force on the 15th August 1887 made the manufacture of catechu and wood oil illegal except under license, and three of the protected forests formed in 1888-89 were known as Ainggye, Shwemyo and Yezin cutch forests.

In 1891-92 a new rule was introduced imposing joint responsibility on all boilers in a camp for the felling of undersized trees. As cancellation of the license was no deterrent when the license was near the end of its time, licensees who felled undersized trees were black-listed and not licensed again. Adulteration with *lein*, *yon*, and other barks was also a common offence. "This offence", states the annual report for 1891-92, "will affect Pyinmana cutch which up to the present has always had a good name for purity." Cutch from the northern areas is always looked on with suspicion due chiefly to Meiktila cutch finding its way over to Pyawbwè where it goes under the name of Yamèthin cutch. In another year it was noted that traders were trying to send to Rangoon a cutch adulterated with bark of *than* and called "*thansha*". In 1894-95 removal passes for cutch were introduced and together with the protective measures laid down in Forest Department Circulars Nos. 54 and 100 of 1894-95 had some good result. In spite of all the methods of control adopted, the manufacture of catechu proceeded more rapidly than the supply of raw materials—warranted and by the end of the century the cutch supply was rapidly becoming exhausted. Thus in 1899 no cutch trees, either large or small, were left in the Upper Sinthe Reserve, where they had once been so abundant. This result has been mainly due to the permission of excessive cutch boiling to mitigate the distress caused by crop failures. Thus in 1891-92 on account of distress in the district more licenses were issued than the supply of mature trees really warranted.

In 1907-08 the last remaining trees in the unclassed forests were felled by licensees recommended by the Deputy Commissioner as an offset to the failure of crops in the Yamèthin area. In 1912-13 and many subsequent years crop failures were the reason for issuing an excessive number of licenses. These licenses were free, duty being charged only at seaports when the catechu was exported. From 1927 to 1930 the number of licenses issued was small because only a few trees of over 3 feet girth remained in existence. But crop failures in both 1929-30 and 1930-31 and the universal fall in prices once more caused the civil

authorities to urge an increase in the number of cutch licenses. In order to meet this demand the girth limit was reduced to 1 foot which will mean the rapid extinction of the remaining cutch trees in the district. Thus in a period of less than 50 years a species which formerly flourished everywhere has ceased to exist except as small scrub and an important industry has been sacrificed to the exigencies of the moment.

Extraction is mainly carried out by elephants and large herds are necessary for the continued working of the forests. The grazing of these herds is an increasingly difficult proposition. In the Yonbin Reserve Messrs. Steel Brothers have been extracting hardwoods by methods new to commercial timber working in this province. A light railway has been constructed from Wintegu Station on the Pyinmana-Taungdwingyi Railway into the reserve and American "Skidder" machines are used for extracting the logs from stump and loading them on to trucks. This work is however closed down owing to the slump in trade. Mechanical haulage is used by the Bombay-Burma Trading Corporation in the East Bank area and by some of the hardwood lessees in the Thitpokpin-Minbyin areas. Mechanical Extraction.

Considerable enterprise has been shown by U Ba Oh and his predecessors in the Yeni Concession in constructing and maintaining an extensive light railway system for extraction of hardwoods to Ela Station on the Main Railway line.

All the floating streams flow into the Sittang. They are in the Yamèthin Division, the Sinthe with its main feeder the Ngalaik, of which the Chaungmagyi and the Taungnyo are affluents and, in the Pyinmana Division, the Yonbin with its tributaries the Palwè, Chaungmangè, Minbyin and Kyaukmasin *chaungs*; the Yeni and the Nancho. Floating Streams.

The sub-joined tables show the produce extracted, the revenue received and the expenditure incurred in each Division during the last 5 years. Revenue and Expenditure.

Pyinmana Division.

Financial year.	Teak. * Tons Extracted.	Teak. Revenue Realized.	Hardwoods. † Tons Extracted.	Hardwoods. Revenue Realized.	Firewood and Charcoal. ‡ Tons Extracted.	Firewood and Charcoal. Revenue Realized.	Revenue from Fisheries, Bamboos, Grazing and Miscellaneous.	Total, Revenue.	Total, Expenditure.	Remarks.
		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.	
1926-27 ...	40,879	12,47,575	30,436	2,24,150	19,085	3,517	26,730	15,01,972	1,75,150	
1927-28 ...	40,918	12,89,257	27,218	2,55,480	14,583	3,701	27,836	15,76,274	2,11,[illegible]73	
1928-29 ...	32,837	10,14,472	29,581	2,61,164	13,925	5,200	28,944	13,09,780	2,66,264	
1929-30 ...	29,762	9,71,940	41,619	3,36,081	14,803	3,511	36,070	13,47,6[illegible]2	2,24,431	
1930-31 ...	33,299	11,28,592	37,753	3,21,162	20,714	4,341	30,483	14,84,578	2,30,231	
Yamèthin Division.										
1926-27 ...	16,992	5,35,460	4,464	39,024	1,201	770	12,402	5,87,656	98,805	
1927-28 ...	16,776	4,84,008	4,580	39,921	2,638	869	11,894	5,36,692	1,15,688	
1928-29 ...	12,1[illegible]0	3,53,928	7,163	49,071	6,751	2,815	14,182	4,19,996	1,57,603	
1929-30 ...	10,886	3,41,780	5,268	41,033	5,827	2,568	14,314	3,99,695	1,38,311	
1930-31 ...	12,243	3,89,019	4,309	20,960	7,113	3,858	10,692	4,24,529	1,25,065	

* Includes extraction by free grantees.
† Includes extraction by right holders and free grantees.
‡ Includes extraction by right holders.

Each Division is in charge of a Deputy Conservator of Forests with headquarters at Pyinmana. The sanctioned staff is :— Staff.

		Pyinmana.	*Yamèthin.*
Gazetted Assistants.	Divisional Forest Officer	1	1
	Indian Forest Service or Burma Forest Service, Class I	2	1
	Burma Forest Service, Class II	2	1
	Revenue Assistant	1	1
Subordinates.	Rangers	8	6
	Deputy Rangers	16	9
	Foresters	69	53

Revenue stations are situated at Pyinmana, Lèwe, Yeni, Ela, Thawatti and all railway stations. Revenue Stations.

There are four forest villages in the Pyinmana Division—Aungzi, Shawbyu, Wintègu and Paunglaung ; and two in the Yamèthin Division—Taikma and Hebron, the latter being inhabited by Christian Chins. Forest Villages.

Artificial regeneration is carried out by the *taungya* method—the existing centres being at Mohnit in the Kaing Range, Sabein and Minyè in the Yeni Rangge, Ainggyè and Sibin in the Yanaungmyin Range and Taikma in the Ngalaik Reserve. Teak is the species sown but *pyinkado* and cutch have been sown in small areas of the Village Supply Working Circle on soil unsuited to teak. The fuel reserves are being systematically worked and regenerated on the coppice system and other small areas have been regenerated by natural methods. Experiments are now being made to determine the best method of inducing regeneration after the extraction of hardwoods in the Yonbin Reserve. Regeneration.

Wild elephants are not numerous and no keddah operations are carried out or proposed. Keddah.

The Burma Forest School was originally founded at Tharrawaddy in 1898 for training the Subordinate Forest Service. The course was for two years and instruction was given in the vernacular only. Students were recruited from subordinates already in the forest service. The Divisional Forest Officer, Tharrawaddy Division, was *ex-officio* Director and exercised a nominal supervision but it is unlikely that he was able to devote much time to the school as the then Tharrawaddy Forest Division which had not yet been split into the existing Tharrawaddy and Zigôn Divisions, was probably the heaviest in the Province. Instruction and direction were mainly carried out by an Extra Assistant Conservator of Forests. The Burma Forest School.

In 1910 the school was transferred to its present position in Pyinmana. The Director was selected from the Indian

Forest Service, as has since been the case, and he has generally had, except during the war period and for some years after, an Indian Forest Service officer as Senior Instructor, in addition to an efficient staff of officers from the Provincial Service (as it was then called).

The first important change in the method of running the school was the institution in 1912 of an English Class, *i.e.*, one in which the students were instructed in English in addition to the Vernacular Class. The students for the English Class are mainly recruited direct from or shortly after leaving school and they enter the Forest School after a probationary period of about one year in the forests during which time the likelihood of their becoming efficient forest officers and being worth the time and expense of training is tested The Vernacular Class, as formerly, is recruited from subordinates already in the service.

The course was, and still is (1931), for two years so there are yearly in residence one Senior English and one Senior Vernacular Class and one Junior English and one Junior Vernacular Class. The average numbers of each class which it was desired to keep up were about 10 each year for the English and 25 each year for the Vernacular but, owing to casualties, the actual numbers passing out at the end of the second year rarely attain these figures.

In 1931 the length of the vernacular course was reduced from two years to 19 months. The outturn is still 25 Vernacular Class men per year but one of the lecture terms has been reduced and the men now join in October instead of in May thereby missing the first rains lecture term.

Annual recruitment to the English Class was also altered in 1931 and in future a class of 17 men will be recruited biennially.

The course is principally of a practical nature, the main instruction being given in the forests on every kind of forest work and the work is actually done by the students themselve. Lecturing in class rooms occupies three months only of the year.

The school buildings, which include the main building, quarters for the staff and students, etc., are excellently situated in Pyinmana on a hill north of the Ngalaik *chaung* and are enclosed in their own grounds. On the south of the stream there is an additional area in which the pumping plant for the water supply is stationed and which also contains experimental plots and which has been laid out as an arboretum.

Athletics are not neglected. The school has an excellent football ground and two tennis courts, in addition to which

the students engage in physical training, hockey, basket ball, boxing and swimming.

There is a natural history Museum attached to the School. This is used for instruction and is also open to the general public. About 6,000 people from all parts of Burma visited the Museum in 1931.

Amongst other items of interest in the Museum is a collection of the birds of the Province which has been mounted by the Bombay Natural History Society. the collection is by no means complete but is being added to rapidly.

In the matter of minerals of economic importance the district has so far proved rather disappointing. The following minerals are, however, reported:— Minerals.

Copper.—Traces of copper ore are noticeable in association with galena on the hill 2 miles 5 furlongs north-east of Kyatpye(20°8′ : 96°23¼′). They do not appear to be of any commercial value.

Galena.—Galena occurs in the quartz-veins penetrating Chaungmagyi series (slates and quartzites) in the following places:—

1. 2½ miles east-south east of Dathwe (20°25′: 96°21½′).
2. 3½ miles north-east of Sedo (20°18′ : 96°20½′) in a tributary of the Mellaung *chaung*.
3. 2½ miles nort -east of Kyatpye, this occurrence is not *in situ*. The parent rock is probably one furlong south-east of the hill 2641.
4. 2½ miles east-south east of Ye-u (20°21½′: 96°18′) in a granitic vein in the *chaung* (not *in situ*).
5. On the hill 1 mile 5 furlongs south-east of Kundaw (20°12′ : 96°22′) in association with iron ore.

At locality No. 1 the vein is about 10 feet and at No. 2 about 12 feet wide. Traces of silver are present in the galena at locality No. 1 .

Graphite.—A small quantity of the mineral is found in a vein intersecting the gneissose granite in the *chaung* 2½ miles east south-east of Ye-u.

Iron-ore.—Hematitic ore is found on the hill 1 mile 5 furlongs south-east of Kundaw. The ore body appears to have originated by a metasomatic replacement of the quartzites. The iron-ore is associated with galena.

Pyrites.—Iron pyrites is found in appreciable quantities in association with galena (1) 32 miles north east of Sedo and (2) 24 miles north-east of Kyatppe.

Saltpetre.—The sandy soil from the foot of the hillock 3 furlongs west of Sagyi (20°27′ : 96°6′) contains a fair amount of potassium nitrate. It is reported that the mineral appears on the surface as an efflorescence in certain seasons of the year.

Another sample from Yindaw (20°43′ : 96° 56½′) also yielded potassium nitrate on analysis.

Steatite.—The mineral is found in small quantities in the limestone on the hill two miles north 85° east of Taungbotha. It seems to have been derived from the magnesium carbonate contained in the limestone, but the quantity is not promising from the economic point of view.

Wolfram.—Wolfram occurs in quartz veins (1) on the hill 2¾ miles north-east of Sedo and (2) 1½ miles south-east of Kyatpye. The lodes were exploited during the Great War, the total output from the first locality being half a ton and from the second locality about a ton and a half.

Another wolfram-bearing area is situated close to the summit of the peak Byingye, 6,254 feet above the sea, on the borders of the Yamèthin District and Loilong State, Southern Shan States. Numerous lodes of good value occur in granite, with a general north-west-south-east strike and low south-westerly dip. None of the lodes appear to be more than 15 inches in thickness. Beryl is a common mineral in them and has not been recorded elsewhere in Burma as an associate of wolfram. Molybdenite is constantly present and appears to occur in greater amount in the higher lodes than in those lower down the hill.

Kaolin (China clay).—Kaolin deposits occur in this district at the foot of the low hills some ten miles west of the railway line at the following places :—

Gwegyi.—At two localities south-west of Gwegyi the ground has been worked for clay. The first of these is on the summit of a low hill and the second is in the bank of the western side of Thingauput *chaung*. At the latter place there are two exposures of bluish grey clay interbedded with the Irrawadian series. It is more of the nature of a pipe-clay and occurs as lenticular beds.

Letpan.—North of Letpan and west of the road to Myohla there are three occurrences with a considerable quantity of white kaoliniferous sand that could be easily won.

Thayetpin.—On the banks of the Kyo *chaung* 2½ miles north-north west of Letpan, beds of bluish grey-white clays of poor quality are exposed at various points in the southern bank of the river.

Indawgyi.—South-east of Indawgyi, a village situated 9½ miles west-south west of Yamèthin on the Rangoon-Mandalay Main Line, a white chalk-like somewhat arenaceous kaolin is exposed.

The total quantity of kaolin available in this district is considerable since the white bed runs in a north and south direction for several miles, although there are many intervals

of a mile or more where it diminishes considerably in thickness or dies out altogether. The deposit around Letpan is the best among the above mentioned localities. Here the clays are remarkably free from oxide of iron, and possess good plasticity and refractory properties.

CHAPTER VI.

Occupations and Trades.

A census of the population of the Yamèthin District has been taken five times since Annexation but the different methods adopted make comparison difficult and the figures for earlier years are not given here. On previous occasions the occupation of dependents was shown as that of the person supporting them but at the 1931 census the occupation of dependents was recorded only if they had one, and if not, the form was left blank. Thus for the most part women, children, old men and unemployed are not included in the figures given below. Classification of people by occupation.

Sub-Class.	Description.	Principal Occupation of Earners.	
		Male.	Female.
I	Exploitation of animals and vegetation.	72,455	11,040
II	Exploitation of minerals	42	...
III	Industry	3,079	822
IV	Transport	6,515	877
V	Trade	4,104	4,373
VI	Public Force	975	1
VII	Public Administration	609	2
VIII	Professions and liberal arts ...	1,057	123
IX	Persons living on their income ...	98	26
X	Domestic service	458	96
XI	Insufficiently described occupations ...	1,049	301
XII	Unproductive	...	...
	Total ...	90,441	17,661

Cultivation is far the most important occupation being the principal occupation of 69,398 male and 10,760 female earners or 74 per cent of the earning population. These earners are divided into groups of— Cultivation.

	Male.	Female.
Cultivating Owners ...	30,642	3,562
Tenant Cultivators ...	15,244	1,621
Agricultural Labourers ...	21,469	4,865

Similar figures for the Burmese race only in the Pyinmana Subdivision indicate the greater ease with which the good land of Pyinmana passes out of the hands of the cultivating owner.

Pyinmana Subdivision (Burmese only)—

		Male.	Female.
Cultivating owners	...	7,742	913
Tenant cultivators	...	8,042	585
Agricultural labourers	...	13,945	2,613

Sugar-cane cultivation is shown as the principal occupation of 369 male and 102 female earners of whom all but 11 males are Burman cultivators in the Pyinmana Subdivision.

Cattle breeding is an important industry especially in the north of the district and is shown as the principal occupation of some 400 persons, but it adds to the income of many more and was thought by the Settlement Officer to be the mainstay of the Yanaung cultivator.

Forestry. Forest work is shown as the principal occupation of nearly 2,000 persons but, especially in the Pyinmana Subdivision, it is the chief subsidiary occupation of agricultural labourers and others engaged in cultivation.

Rice Mills. There are eight rice mills in Pyinmana—three in Lèwe and one each at Ela, Pyudwin, Shwemyo, Tatkon, Nyaunglun and Pyawbwè, each employing from two to 30 men and a few women.

Saw Mills. In the Pyinmana Forest Division there are 12 saw mills—two at Sabein and one each at Gwethonbin, Thawatti, Ela, Lèwe, Kantha, Wintègu, Compt. 5 Minbyin Reserve, Thitpokpin, Lèzamyaung, Minbyin and Shwegè-in; and five in the Yamèthin Forest Division at Kyidaunggan, Thinwindaing, Bwetkyi, Mayangon and Onbin. Most of them employ about 30 men.

Other factories. There are three ærated water factories in Pyinmana—one each at Lèwe, Yamèthin, Tatkôn and Pyawbwè and there is an oil mill at Pyawbwè.

Printing Presses. There is a printing press at Pyawbwè and three presses at Pyinmana. All do job printing only except the Banduyaza Press in Pyinmana which also publishes a fortnightly journal.

Pottery. The town of Pyinmana has long been noted for its glazed ornamental pottery, but it is to be feared that it is now a decaying industry. The chief exponent of the art is Saya On Pe of Shwe Kyi quarter, a Gold Medalist, who has kindly supplied the following information :—*

Water-filters and carafes, bowls for *hookahs*, flower pots, and ornaments of which the favourite appears to be a model

* A somewhat different account is given in Part I, Vol. II, of the Upper Burma Gazetteer.

of the Kyaiktiyo Pagoda and the rock and hill on which it stands are the chief articles made.

The clay used is of a greyish colour mottled with rust coloured patches. It used to be obtained from the banks of the Ngalaik *chaung* a short way above the road bridge but that is not now permitted and it has to be brought from near the railway line to the north of the Forest School.

On arrival at the workshop the clay is pounded up, mixed with a little water and strained through a fine sieve or cloth which retains all extraneous matter. The fine clay which results is then fashioned with hand and wheel into the desired form. Glazing and colouring are then applied, after which the articles are fired. Colours used are green, blue and red. Colouring is obtained by rubbing with pieces of metallic ore obtained from Bawdwin, Namtu or Byingyè known as "Bawnin kyauk" and containing lead, iron and silver.

The green colour is obtained by the application of this Bawnin-stone and copper-stone; the blue by the application of iron-stone in addition to these two; and the red by the application of the silver obtained from the Bawnin-stone mixed with saltpetre and white sand-soap.

A white pottery is also produced which is made from Chinese clay obtained from near Indaw Village west of Yamèthin mixed with a white crystalline sand obtained from a spot about 10 miles north of the China clay bed. This pottery is also coloured as required.

Ordinary unglazed pottery for domestic use is made at Obo near Pyinmana, Indaingtha near Lèwe and at Htandaw, Htanaunggon and Nwagu in the Yamèthin Subdivision.

Other- Industries.

The more common and useful crafts are not specialized in particular localities; blacksmiths and carpenters are found in all the larger villages and mats and baskets are woven where there is a supply of bamboos. There is not very much silk weaving but weaving of cotton cloth is universal in Yanaung Township and the upland country generally.

Among special handicrafts are the manufacture of *dahs* and bowls at Mindan just outside Pyawbwè, of betel nut crackers, scissors, *taywins* and other implements at Shanzu, Kyini and Thigon, and of cart hubs and spokes at Gwesi near Pyawbwè and at Yingatkon in the south of Yanaung Township. Almost all the maize of the Pyinmana Subdivision is bought by dealers in the Shwekyi quarter of Pyinmana Town where the sheathes (*hpet*) are separated, made up into bundles and exported for use as cigar wrappers to Rangoon, Mandalay and Mônywa. The preparation of lime for chewing with betel is also carried on in

this quarter. Cigars are rolled in Pyinmana, Ela and some other places. Coarse gravel used for ballast on the railway is quarried just north of Pyinmana. Other occupations returned at the census included—food industries, rice husking and pounding, making of sugar and jaggery, toddy drawing, industries of dress and toilet, making of jewellery and ornaments. Fifty-seven male and three female earners and 3,307 male and 303 female dependents follow the religious life; 115 men and one woman obtain a living from Law and 415 men and 66 women (including midwives) from the practice of medicine and the healing arts.

Trade routes. The main railway line is the most important trade route, most of the trade being with Rangoon and Mandalay and there is also a considerable trade along the new branch railway from Pyinmana to Taungdwingyi, Natmauk and Kyaukpadaung. Some figures for this trade are given in Chapter VII. Most of the timber is floated down the Sittang River. From the Yamèthin Subdivision there is some trade westwards with the Natmauk people who bring sesamum and jaggery for sale in exchange for paddy. On the east there are several routes from the Shan States whence goods are brought by pack cattle and consist chiefly of *hpet* for cheroot wrappers, tea, oranges, ginger and *sanwin*. Theingon, just east of Yamèthin, and particularly Pyawbwè used to be big centres of Shan trade but most of their importance has been lost with the opening of the Thazi-Kalaw Railway. The opening of the Pyinmana-Kyaukpadaung Line has also had the effect of reducing the number of Magwe buyers from Pyawbwè and Yanaung, for now they find it cheaper to do their business with Pyinmana. There is also a big trade in cattle chiefly to Lower Burma and buyers from the surrounding districts come to the cattle market at Pyawbwè. In the Pyinmana Subdivision the great bulk of trade is along the two railway lines. There is a certain amount of trade through the Taungnyo Valley to the east of Yamèthin, Meiktila and Myingyan. The chief route from the Shan States is to Thayetkon near Yezin but there are numbers of others all largely used for opium smuggling. Most of the betel leaf consumed in the Pyinmana Subdivision comes from gardens kept by Karen tribes in the eastern hills and the traders who fetch it go up from Sinthewa and to a lesser extent from Ela *viâ* Pinthaung.

Bazaars. For the distribution of goods within the district there are shops at Pyinmana, Yamèthin, Pyawbwè, Lèwe, Kyidaunggan, Tatkon and many of the larger villages but the five-day bazaars are the principal agencies for the exchange

of commodities. They are said to be a Shan institution. The following description of the Kyauksè bazaars is equally true of Yamèthin :—

"Villages at which bazaars are held fall into groups of five and at each village within a group in rotation, a bazaar is held once in five days. Each group has its own party of sellers, who make the round of the component villages, attending the bazaar in the morning, then packing up and moving on with their carts during the afternoon to the village next in rotation, where they camp for the night on the market place, till trade begins again in the morning. They offer for sale all the necessaries and luxuries which are ordinarily required by the cultivator and his household. Villagers often bring in commodities of which they have a surplus to sell, and make their purchases with the cash which they realize. The system of itinerant bazaars is most convenient to the villagers, as it reduces the distance which they have to travel to do their marketing. These bazaars suffice to meet the ordinary daily needs of life. They are supplemented by the annual pagoda festivals where the year's supply of special articles are purchased such as agricultural implements and their spare parts, carts, oxen, ponies and baskets." Pyinmana, Pyawbwè and Yamèthin have daily bazaars maintained by the municipalities with a "big bazaar" every five days.

The District Council manages 25 bazaars—six in Pyawbwè Township * *viz.*, Shweda, Pegon-Mindan, Yanaung, Kyini, Shanzu and Yindaw ; seven in Yamèthin Township, *viz.*, Theingon, Ywadan, Nyaunglun, Magyibin, Tatkôn, Ywathit and Sinthe ; seven in the Pyinmana Township, *viz.*, Shwemyo, Pyokkwè, Kyidaunggan, Ywadaw, Sinthewa, Pyangapye and Pyinmana-haung; and five in the Lèwe Township, *viz.*, Lèwe, Khavangaing, Thabyebin, Ela and Thawatti.

In addition to these, seven bazaars are maintained by the Deputy Commissioner's Local Fund, *viz.*, Shawbyugon and Shwenyaungbu in the Pyawbwè Township, Myohla and Ônbin in the Yamèthin Township, Yezin-Thayetkon in Pyinmana Township, Shanzu-Talokpin and Kantha in the Lèwe Township.

CHAPTER VII.

MEANS OF COMMUNICATION.

The extension of the Rangoon-Toungoo Railway Line to Mandalay was started immediately after the Annexation and the line was opened to traffic as far as Pyinmana on the 1st Railway.

* Includes Yanaung Township now abolished.

October 1888 and to Yamèthin on the 1st March 1889. The line enters the district a couple of miles south of Thawatti (210 miles from Rangoon) and leaves it north of Shanywa (miles 293) passing through the following stations:—Thawatti, Htein-In, Ela, Pyiwin, Pyinmana Junction, Ywadaw, Kyidaunggan, Pyokkwè, Sinbyugyun, Shwemyo, Sinthe, Tatkon, Magyibin, Nyaunglun, Hngetthaik, Ingon, Yamèthin, Ingyingan, Shweda, Pyawbwè and Shanywa. A branch line from Pyinmana to Taungdwingyi (later extended through Natmauk to Kyaukpadaung in the Myingyan District) was opened to goods traffic only on the 15th December 1924 and to passenger traffic on the 1st April 1925 This line passes through stations at Pyudwin, Bawdigon, Lèwe, Kantha, Wintègu, Thitpokpin, Minbyin and Dalangyun (36 miles from Pyinmana) and then crosses the Pegu Yoma by a pass some 400 feet high.

In 1911 the Upper Burma Wood Company (now taken over by U Ba Oh) constructed a light railway from Ela to their saw mill at Sabein 13 miles distant. This line passes through several large villages and is much used as a free means of transport to and from the Ela market. At intervals some one falls off the log or scantling or empty truck and dies, but any attempt by the owners to stop the traffic is easily countered by damaging the line.

In 1927 Messrs. Steel Brothers constructed a light railway (formally opened in March 1928) from Wintègu Station to the timber camp and saw mill at Lezamyaung some six miles distant in the Yônbin Reserve. It was later extended further into the forest but has now been closed down owing to trade depression.

The Public Works Department have a light railway two miles long from Kyidaunggan to the Sinthe. The rails and rolling stock were previously in use on the old Mandalay-Madaya Railway.

A short light trolley railway leads from Ywadaw Station to quarries in the Pozaungdaung hill.

Passenger Traffic.

Except from Pyinmana, Yamèthin and Pyawbwè, where there is a fair proportion of passengers for Rangoon and Mandalay, passenger traffic is mainly local. The annual number of passengers (to the nearest thousand) from each station is—

Thawatti ...	74,000	Pyokkwè ...	46,000
Htein-In ...	10,000	Sinby gyun...	21,000
Ela ...	135,000	Shwemyo ...	59,000
Pyiwin ...	39,000	Sinthe ...	22,000
Pyinmana ...	300,000	Tatkon ...	86,000
Ywadaw ...	51,000	Magyibin ...	38,000
Kyidaunggan...	99,000	Nyaunglun ...	52,000

Hngetthaik ...	20,000	Shweda ...	56,000
Ingon ...	17,000	Pyawbwè ...	175,000
Yamèthin ...	160,000	Shanywa ...	20,000
Ingyingan ...	13,000		

And on the Taungdwingyi line—

Pyudwin ...	73,000	Wintègu ...	14,000
Bawdigon ...	14,000	Thitpokpin ...	20,000
Lèwe ...	73,000	Minbyin ...	12,000
Kantha ...	60,000	Dalangyun ...	9 000

The largest volume of inward goods traffic is at Pyinmana where some 25,000 tons are handled annually, chiefly cotton manufactures, paddy, other grains and pulses, kerosine oil, building materials and provisions. Pyawbwè comes next with 21,000 tons then Yamèthin with 6,200 tons, Lèwe 4,400 tons, Hngetthaik with 4,300 tons and Tatkôn with 4,000 tons of similar goods. Goods Traffic.

Nyaunglun is shown as handling 3,900 tons, mostly thatches, Thawatti 3,300 tons of stone, timber and kerosine oil, Magyibin 3,300 tons of paddy, furniture and *ngapi*, and other stations smaller amounts of similar miscellaneous goods down to Ingyingan with 14 tons of rice, paddy, tamarind and soap-sand.

Pyinmana also heads the list for outward traffic, handling annually some 39,000 tons, chiefly rice, paddy and paddy husk, pulses, timber, earthernware, bricks, hides, fodder, jaggery, fresh fruits, stone and jungle leaves. Wintègu has been second for some years with over 30,000 tons of timber but this will stop with the closing down of Messrs. Steel Brothers, work at Lezamyaung. Next comes—Kyidaunggan with 16,700 tons of paddy and rice, timber and bamboos, thatches, coconuts, stone and pulses ; Ela with 16,400 tons of paddy, tobacco, timber, firewood, sawdust, fruits and fodder ; Lèwe with 14,800 tons of rice, paddy husk and timber, the rice going chiefly along the Kyaukpadaung line ; Pyawbwè with 13,000 tons of onions, oil seeds, cutch, cigar leaves, bamboos, hides, pulses, paddy and tamarind ; Kantha with 6,200 tons and Thawatti with 5,600 tons of paddy and timber ; Yamèthin with 5,200 tons of turmeric, bone, fruits, rice, pulses, hides, oil seeds, thatches, charcoal and chillies, and other stations with smaller amounts of similar articles (mainly paddy and timber in the Pyinmana Subdivision and dry crops from the Yamèthin Subdivision), down to Htein-In whose only export is shown as 35 tons of tobacco.

The Sittang or Paunglaung is the only navigable river. It is possible for dugouts throughout the year and during the high water season for larger boats. At the time of the Annexation Government launches operated Waterways.

off Sinthewa and some years ago a launch came up from Toungoo as far as Yeniwa but experienced considerable trouble. Owing to the absence of road communication during the rains the maize and other monsoon crops of Kyidaung and neighbouring villages have to be taken down the Sittang by boat to Sinthewa whence they are transported by cart to Pyinmana. All the floating streams (a list of which is given in Chapter V) also find their way into the Sittang and the timber, after being measured at Toungoo, continues down the Sittang and then through the Pegu Canal to Rangoon.

Roads. During the Burmese règime no provision was made for the construction or maintenance of roads. The official road or *Min-lan* (known later as the Frontier road) indeed ran north and south throughout the district close to the present railway line, but its repair was only undertaken spasmodically as a village duty by forced labour to facilitate the progress of the *Wun* or some other important official, or under the direction of some energetic headman, or else by some individual or group of villagers as a work of merit. Such bridges as were required were almost invariably constructed as a work of merit. The most important of these was the *Ningyan-ku-tada* constructed over the Ngalaik in 1832 by Tha-Dok-Gyi which gave the name of Ningyan to the present town of Pyinmana.

Divisions. The Yamèthin Subdivision comes under the Executive Engineer, Meiktila Division, in the River Circle and the Pyinmana Subdivision under the Executive Engineer, Toungoo Division, in the Pegu Circle of Superintendence.

Roads are divided into Main Roads maintained from Government Funds by the Public Works Department and District Roads maintained out of local funds by the District Council. There are also some roads classed as District Roads, but maintained by the Public Works Department out of the Deputy Commissioner's Local Fund, and Forest Department roads maintained by them out of their own funds. Within municipal limits roads (except such portions of the main roads as fall within such limits) are maintained by the municipal authorities.

It should however be understood that as far as District Roads are concerned the word "maintained" is used in a purely Pickwickian sense.

Principal roads of the District—(i) Main Roads. (1) The Grand Trunk Road from Rangoon to Mandalay runs through the length of the district. It is metalled and bridged throughout and portions of it have been tarred. The section from Yezin to Yamèthin was opened to traffic in 1931.

This road enters the district at Yeni on the Toungoo border and passing through Thawatti makes a bend westwards to Lèwe (17 miles) and thence north-east to Pyinmana (11 miles) passing near Bawdigon Station and through the large villages of Pyinmana-haung and Gyinlo. Within Pyinmana Town the Ngalaik is crossed by a fine bridge built in 1931 to replace one destroyed by the floods of May 1930. After crossing the Ngalaik the road runs in an easterly direction for about three miles to the Sinthe Bridge where it turns north passing a number of fair sized villages to Yezin, 11 miles from Pyinmana. The next section of 18 miles to the Subdivisional boundary is mostly of a switch back character through *indaing* jungle. The road passes near Shwemyo and just north of that reaches its most picturesque portion where it runs along a narrow ledge between the Sinthe River and a precipitous cliff some 200 feet high, called the Shwemyo Bluff, on the top of which is situated a new Public Works Department Inspection Bungalow known locally as "*Sein-yaung-chi-bo-dè*." The Subdivisional boundary is crossed at the Môn *chaung* bridge—which really spans the Nawin *chaung* of which the Mon is a tributary—and thence the road passes through Tatkon, Magyibin, Nyaunglun, Hngetthaik and Inzin to Yamèthin (27½ miles). From Yamèthin the road continues another 29½ miles to the Meiktila border at the Chaunggauk stream, passing through Pyawbwè Town and the large villages of Shweda and Ingyingan.

(2) From Yezin a branch road nearly five miles in length leads westward to Kyidaunggan Station. Unfortunately there is no bridge over the Sinthe so the road is of little use in the rains. In the dry weather a *kutcha* work of faggots and straw enables vehicles to cross the sandy bed of the *chaung* and the small trickle of water to which it is then reduced. The road is metalled but in only fair condition at present.

(3) The Pyawbwè-Yanaung-Magwe Border Road, 26 miles in length, passing through Yanaung, Thapanchaung and Kyundon is metalled and in good condition up to 8 miles, but beyond that is still under construction.

(ii) District Roads.

All the District Roads are in a bad condition, some being rather worse than others.

The following are the District Council roads in the Pyinmana Subdivision :—

(1) Pyinmana to Sinthewa, six miles, metalled and bridged, but most of the bridges are broken and the road is full of deep holes. It passes the considerable villages of

Nyaungbintha and Thanatpin and carries a good deal of cart traffic bringing paddy, beans, etc., from the villages along the Sittang and fuel from the east bank.

(2) Pyinmana to Seiknandon, five miles, metalled and bridged with timber. It is in a better condition than the other District Roads and is possible for a motor car without excessive discomfort if the speed is restricted to 15 miles per hour. Numerous pony carriages ply for hire along it but the ponies not unnaturally prefer the smoother berm road at its side which is also used by the very heavy cart traffic bringing down the produce of the Taungnyo Valley and the adjacent forest reserves. Actually the road goes to Pyangapye where there is a bazaar and not to Seiknandon which is on the other bank of the Ngalaik which flows between the two villages. Seiknandon, generally pronounced Singyandon, was the name for the whole locality in Burmese times.

(3) Nyaungbinwaing (adjoining Pyangapye) to Inbu near Lèwe, 6½ miles Unsurfaced and most of the bridges are broken. It passes through Kyabin, Kyuntapet and Yanaungmyin. From Kyuntapet a Forest Department road branches westwards to Ainggyè Bungalow and then through the Yanaungmyin Reserve into the Palwe Reserve.

(4) Lèwe to Gyobin on the edge of the Pyilonchantha Tank, three miles. The bridges are broken and the road is impassable except for carts. The fine bridge over the Palwe at Shanzu is therefore inaccessible.

(5) A short branch road ¾ mile long from Shwemyo Station to Shwemyo Village on the bank of the Sinthe Stream. Except for a short stretch near the Sinthe the road is in fairly good condition but there is no means of reaching it from the new Trunk Road from which it is separated by a stretch of waste land and the Sinthe *chaung*.

(6) Ela to Kyaungye on the Trunk Road, 3·12 miles. Unmetalled and in bad condition. The repair of this road was undertaken as a relief work in 1931 but did not prove very popular and little improvement was effected.

(7) The Town roads of Ela (1½ miles), Thawatti (½ mile), Lèwe (1¼ miles) and Kyidaunggan (2 miles). Partly surfaced but in no better condition than ordinary village roads and in some places worse—especially Kyidaunggan.

The following is said to be a correct list of the District Council Roads in the Yamèthin Subdivision but as it is the third different version furnished it may be wrong. They are all in a very bad state :—

(1) Yamèthin-Theingon-Bwet, seven miles long, partly metalled, but unbridged.

(2) Tatkôn-Ywathit, two miles long, the bridge over the Nawin having collapsed only part of the road is available in the rains. Surfaced.

(3) Nyaungyan-Pasobyu, 14 miles.

(4) Pyawbwè-Kyauksè, seven miles, partly metalled but unbridged.

(5) Pyawbwè-Shawbyugon, nine miles.

(6) Yamèthin-Ywadan-Yanaung, 15 miles.

(7) Yanaung-Yindaw, 12·88 miles.

(8) Tatkôn Town Road, one mile.

All are unmetalled and unbridged except Nos. (1) and (4) which are partly metalled.

(iii) Deputy Commissioner's Local Fund.

Five roads are maintained out of the Deputy Commissioner's Local Fund :—

(1) A continuation of the Pyinmana-Seiknandon Road as far as Taungnyo, a distance of over 18 miles. The road is unmetalled but the bridges are repaired at intervals.

(2) A continuation of the Lèwe-Gyobin Road from Gyobin to Pedonmyaung some three miles. Owing to the neglect of the Lèwe-Gyobin section by the District Council, this part of the road is largely inaccessible.

(3) Letpankaya-Kholon (really only to Kyauksè), 3·63 miles. Part of the War-time road to to the wolfram mines on Byingyè. It does not show much sign of upkeep and is now rarely used.

(4) Six and half miles of the Nyaungyan-Pasobyu Road.

(5) One and quarter miles of the Theingon Bwet Road.

(iv) Other Roads.

Roads or cart-tracks, some reasonably good, some really bad and some indifferent, connect most villages, at least in the dry weather. Their upkeep is almost entirely dependent on public spirit or the personal convenience or trading needs of some rich man, though assistance is sometimes given from the Deputy Commissioner's Local Fund in the area to which it applies and is hopefully expected from the District Council in other parts of the district. In general such roads and bridges and the bridle paths of which traces are still visible are a legacy from the energetic administration of Lieut.-Colonel Biggwither who was known as the *Kya-A-ye-baing*.

The Forest Department maintain a number of excellent roads for their own purposes of which the most frequented by the public is probably that from Ywadaw through Chaungmagyi to Mingon in the Taungnyo Valley. A list of Forest Roads is contained in the Working Plans.

Public Conveyances.

Motor omnibuses ply for hire on the following routes:—

Yamèthin—Theingon
Yamèthin—Tatkôn
Yamèthin—Pyawbwè
Pyawbwè—Yindaw
Pyawbwè—Yanaung
Pyinmana—Lèwe
Pyinmana—Yezin
Yezin—Kyidaunggan

and can be chartered for whole journeys to any point on the Trunk Road or any other place which is accessible to them. The fares are moderate, and they are great convenience in enabling the rural population to get to the courts, offices and shops and return home without delay.

Ticca gharries ply for hire in Pyinmana, Yamèthin and Pyawbwè and light pony traps or *tongas* ply all along the roads out of Pyinmana as far as Sinthewa, or Yezin, to Lèwe and beyond, to Pyangapye and if required right up the Taungnyo Valley, and in the dry weather wherever there is a passable village road or cart track through the paddy fields, even as far afield as Kyidaung, Natthayè and Zibyubin.

Electric Lighting.

In 1923 a license was granted to a company to sell electricity for lighting purposes in Pyinmana Town. It supplies the chief roads within the municipality as well as shops and houses.

Electric light was started in Lèwe Town in March 1931 and for the public lighting of the streets from the 1st April 1931. But this service ceased on the 1st June 1931, as the District Council alleged that it was unable to afford it, though the streets had previously been lighted with oil lamps for some 24 years at almost the same cost.

Arrangements are now being made for an electric supply in Yamèthin.

Ferries.

The District Council maintains ferries at Kyidaung, Thayagon, Sinthewa and Zibyubin in the Pyinmana Township and at Yonbinzaung in the Lèwe Township The Deputy Commissioner's Local Fund has a ferry at Yeni-Alègyun in the Lèwe Township. All are across the Sittang, except at Thayagon where the ferry is across the Sinthe.

Posts and Telegraphs.

There are Post and Telegraph offices at Yamèthin, Pyinmana, Lèwe, Ela, Pyawbwè and Yanaung and branch post offices without telegraphs at Tatkôn, Shwemyo, Kyidaunggan and Thawatti. Mails to and from the Yanaung office are sent by road three times a week. The other offices receive and despatch mails daily by rail. There are also railway telegraphs at railway stations. Villages where there is no post office receive mails at uncertain intervals.

The district is fairly well supplied with Dak Bungalows. The Irrigation Branch of the Public Works Department maintain three bungalows on the canals, and the Roads and Buildings Branch maintain about 20, mostly on the railway line or main roads. In the Pyinmana Subdivision the Forest Department maintain a considerable number of bungalows both in the reserves and also along the routes leading out to them as in the Taungnyo Valley and along the Taungdwingyi Railway Line. **Bungalows.**

A list of bungalows is given in the B Volume of the Gazetteer.

CHAPTER VIII.

FAMINE.

For purposes of famine consideration Yamèthin District may roughly be divided into two parts, *viz.*, Yamèthin North or the Yamèthin Subdivision, and Yamèthin South or the Pyinmana Subdivision.

Yamèthin South may be regarded as secure and normally this part produces more food grain than its people can consume, the surplus being exported from the district. From 1902 onwards a total failure of the rice crop has been unknown.

Yamèthin North is insecure. There were serious scarcities in the years 1907-08 and 1913-14. There was however no famine in the real sense of the word as understood in the Peninsular of India. In the Famine Analysis, undertaken in the year 1924, Yamèthin Subdivision was divided into three grades of security, two having a surplus and one a deficiency, but the total estimate for the subdivision gives a net surplus of 290,000 baskets, or food for rather over 24,000 people, on the assumption of 12 baskets of food per person per year. This yield has apparently been calculated on the paddy area only, on an assumption of 28 baskets yield per acre. The importance of sesamum, which, not being a food grain, has not been taken into account in the Famine Analysis cannot, however, be overlooked. It is rare to find a failure of *ya* crops as well as of paddy and the people of the uplands possess a wonderful capacity for weathering bad harvests. This is due to subsidiary occupations, the sale of work cattle and such substitutes for rice as maize, millet and *lu*.

The Thitsôn Reservoir Scheme, which will bring over 60,000 acres of land under irrigation, will, when carried out, give greater security to Yamèthin North.

CHAPTER IX.

General Administration.

Historical Pre-Annexation. Prior to Annexation the present Yamèthin District comprised the Burmese jurisdiction of (1) the Toungoo-Yamèthin *hnit-myo-wun* ; (2) the Yindaw-Yanaung-Tayanga *thôn-myo-wun* ; (3) the Nyaungyan-Hlaingdet-Thagaya *thôn-myo-wun* and the Nyaung-ywe-si of the Shwepyi Yanaung Myin-nè or cavalry jurisdiction.

Before the Second Burmese War the area south of the Ngalaik *chaung* formed part of the Toungoo jurisdiction which then comprised 52 *myos* or headmen's charges. Of these 40 were annexed in 1852 and the remainder, which became known as the *Toungoo-nègyan sè-hnitmyo*, came under the Yamèthin *wun* who was then known as the Toungoo-Yamèthin *hnit-myo wun* and seems to have been peripatetic between Yamèthin and Pyinmana. A line of masonry pillars demarcated the frontier and in 1858 King Mindon sent the Malun *myosa* from Mandalay to be *kalawun* for the Southern frontier. The names of the 12 jurisdictions as recorded by the Settlement Officer in 1911 were the *myos* of Taungnyo, Lèma, Yanaungmyin, Wanwègon (Lèwe), Minbyin, Wetkabu, Zeyathein (Ela), Ningyan (Pyinmana), Kyaukchit and the *daings* (which counted as *myos*) of Chaunggwa, Taungwin and Kyidaung. Thitala *myo* (Seiknandon) was subsequently constituted. North of the Ngalaik and east of the Posaungdaung was the Pyagaung *myo* (now Kyidaunggan) and the *daings* of Thazi (Ywagauk), Koywa, Shwemyo, Ye-E, Taungbalu, Shwebe and Taungwin.

Yamèthin was governed by a *myowun* who had subordinate to him the five *myothugyis* of Wadi, Batta, Myohla, Panking and Nyaungaing. The order of precedence of officials superior to the *myothugyi* ran thus : the *kayaing-wun*, the *myo-wun-sitkè*, the *le-wun-sitkè*, the *thittaw wun* and the *nakhan* The last-mentioned was next superior to the *myothugyi* and exercised petty criminal jurisdiction.

The *sitkès* ranked according to seniority, their offices being otherwise considered of equal dignity, and they had equal powers in criminal cases. The *myowun* and *kayaing wun* generally made Pyinmana, then known as Ningyan, their headquarters, owing to the important teak industry and the proximity of foreigners on the border, while the others ordinarily remained in Yamèthin.

The *kayaing wun* was also known by the name of *ko-myo-wun* having nine districts in his charge, namely, Pyinmana (called Taung Ngu), Yamèthin, Meiktila, Yanaung, Tayanga, Nyaungyan, Pin, Natmauk and Kyaukpadaung. The *myo wun* was called the *hnit-myo-wun*, having charge only of the Taung Ngu (Pyinmana) and Yamèthin Districts. The *le wun* was in charge of all cultivated lands and of the rivers and tanks, and the *thittaw wun* of the forests. Technically the power of life and death rested with the King only, but practically all these officials exercised the fullest powers. Bribery prevailed in every case, for the judge's salary depended on it. Torture was always practised, but was more openly carried out in King Thibaw's time than in the time of his father. Officials obtained their position really by bribes, it might almost be said by purchase. The following was the Yamèthin scale of the so-called *Kadaw Letsaungdaw* :—

		Rs.
For a *Kayaing Wunship*	...	10,000
For a *Myo Wunship*	...	5,000
For a *Lè Wunship*	...	2,000 to 3,000
For a *Thittaw Wunship*	...	
For a *Sitkèship*	...	
For a *Myothugyiship*	...	1,000 to 2,000
For a *Ywathugyiship*	...	500

but there was no fixed limit—whoever paid most got the appointment. The *myothugyi* and *thugyi* were the only officials who were appointed on hereditary claims. The others were subject to loss of office at the caprice of the King, or according to his need of money ; and during part of King Thibaw's reign officials often succeeded one another at an interval of only a few months. There was no such thing as a regularly instituted Civil Court. Any person could commence his suit anywhere before any official from a *ywagaung* upwards, provided he paid the *kun-bo*, the Royal Fee, which was handed by the officer trying the case to the *kun-bo-tein*, the Collector of Court-fees. No suit could be decided except in the presence of the parties, and when the judgment was passed the parties were asked whether they would abide by the decision. If they agreed both parties ate *letpet* and the decision was considered final. If one party demurred he refused to eat the pickled tea and might then refer the case to any superior official, or to the non-official arbitrator if the other party agreed to the person nominated. Very often, however, the objecting party was thrashed by the court officials into accepting the arbitrament and eating the *letpet*. Debtors were usually very severely treated, put in the stocks out in the sun or rain, saw their

children and other relations sold as slaves, and were themselves so sold, in direct disobedience to the-*Dhammathat*.

The Towns of Yindaw, Yanaung and Tayanga had separate administrative officials; so also had Nyaungyan and the *myin-nè* which only came under Yamèthin after the Annexation. The district establishments were—For Toungoo-Yamèthin,—one *wun*, two *sitkès*, two *na-khans*, two *myosayes*. For Yindaw-Yanaung-Tayanga and Nyaungyan-Hlaingdet-Thagaya,—one *wun* and two *myosayes* each.

The people of the Myin district were called *myin ahmudan* or cavalry, while those of the other tracts were called *athin*. The *myin* people were always liable to be called out for active service in war time, and in time of peace as many as ten *per cent* of the number of households had to remain in the palace on service. These men received monthly wages varying from seven to ten rupees. In return for their service the *myin* people were allowed the privilege of travelling to any part of Burma without molestation, and without being responsible to any official other than one of the *myin* country. Even if they committed a crime, no matter how heinous, they could only be punished by their own officials. The *athin* men, if they left the district, could be sued for debt by none other but *athin*. An *athin* had no control whatever over a *myin* man, even if he resided in the *athin's* district. He had to refer any matter of offence to the nearest *myin* official.

In the hills at the far south-eastern corner of the district the boundary was obscure. The present inhabitants of Alègyaung-Bawgata consider that their State was under the Ningyan *myo-wun* and he seems to have taxed them. On the other hand in 1880 the Deputy Commissioner of Toungoo seems to have made arrangements for the administration of the State during the ruler's minority. A semi-independent *sawbwa* ruled the Thitkyeik State with his capital at Kyidaung until its absorption into the Burmese Kingdom in 1884 when the administration was handed over to U Lat the *thittaw-wun* who then became known as *Thitkyeik-wun*.

The Army in Bur- n se imes.

In the time of the Burmese kings there were several classes of *ahmudan* or soldiery. There were six classes of interior *ahmudan*: the *Myauk da-wè*, *taung da-wè*, *Myauk-maya-pin*, *taungmaya-pin*, *myauk taya-ngasè*, *taungtaya-ngasè*; and six classes of exterior *ahmudan*, namely, the *ywe let-wè*, *ywe let-ya*, *let-wè chaung*, *letkya chaung*, *Natsu Let-wè*, and *Natsu Let-kya*.

he *ulabyo hmudan*.

Besides these cohorts of *atwin* and *apyin ahmudan chaukso* there were many other classes, of whom the *kulabyo* formed one. The *kulabyo ahmudan* were exclusively raised

from the descendants of the Delhi emigrants, and numbered one hundred and fifty These men were permanently quartered in the palace and received a monthly wage of Rs. 10. If, however, any of them preferred to have land instead of their monthly pay, plots were assigned in the localities from which they came. The one hundred and fifty men who formed the corps came from different localities, but the grants of land were always made to the *ahmudan* in his own neighbourhood and the land was worked by his relations.

A Yamèthin man could only get land at Yamèthin, not at Yindaw or Meiktila. The Yamèthin *ahmudan*, however, appear never to have taken any of these grants in lieu of wages. At any rate there are no *ahmudan-sa* lands in the district.

Post-Annexation. Early Days.

Ningyan was one of the 12 districts into which the newly-conquered province was at first divided. Two more including Yamèthin were soon added. The name Ningyan remained throughout 1886 but later the old Burmese name of Pyinmana was adopted. The Ningyan District when first formed comprised only the area south of the Ngalaik Stream which had formed the old Toungoo-*nè-gyan*. It was however very soon extended to the limits of the Pyinmana Subdivision. The Yamèthin District at first included Meiktila and extended as far as the borders of Kyauksè but in October 1886 Meiktila was cut off from it and formed into a separate charge. For some time the Deputy Commissioners worked directly under the orders of the Chief Commissioner, but in June 1886 a Commissioner was appointed "for the remote districts of Pyinmana and Yamèthin," and in September these districts became part of the Eastern Division of which the headquarters were established at Meiktila. A list of Deputy Commissioners is given later in this Chapter. The Deputy Commissioners were aided by Assistant Commissioners who soon came to be called Subdivisional Officers. Mr. Bernard was Subdivisional Officer, Pyinmana, in 1887. He lived in a house on the south bank of the Ngalaik which property his daughter Ma Tu sold to the American Baptist Mission. Mr. H. G. Leveson was Subdivisional Officer, Pyinmana, from February to October 1890 and then held a similar post at Lèwe for a couple of months. But the Lèwe Subdivision, if such it was, was evidently of short duration. The Police of Pyinmana seem to have been under an Assistant Superintendent holding an independent charge but in the very early days the Deputy Commissioner seems often to have had direct control of the Police Force.

Until the final pacification of the country there was an Imperial Police Officer at Shwemyo and Lèwe. Mr. Gadsden who was at Pyinmana in 1890 was later stationed at both those places.

Changes in Administration. The townships first formed by the British were—

In Yamèthin	...	Yamèthin. Pyawbwè. Yindaw.
In Pyinmana	...	Pyinmana (Ningyan). Paunglaung. Taungnyo. Lèwe (Wanwègon).

In 1894 the Pyinmana District was reduced to a subdivision and incorporated in the Yamèthin District and the Paunglaung and Taungnyo Townships were amalgamated and called the Kyidaunggan Township which in turn was amalgamated with the Pyinmana Township in 1900. In 1896 the northern boundary of the district was altered by the transfer of 18 villages from Pyawbwè Township to the Meiktila District while at the same time 24 villages were transferred from the Yamèthin to the Pyawbwè Township. In 1907 Township Headquarters were moved from Yindaw to Yanaung. In 1932 the Yanaung Township was amalgamated with Pyawbwè Township as a measure of economy.

General Administration. The district now consists of the Yamèthin and Pyawbwè (with Yanaung) Townships in the Yamèthin Subdivision and the Pyinmana and Lèwe Townships in the Pyinmana Subdivision.

The district is under the general supervision of the Commissioner, Mandalay Division, and is in charge of a Deputy Commissioner who is also District Magistrate, Collector under the Land and Revenue Regulation and the Stamp and Excise Acts, Registrar, and Inspector of Factories. At headquarters there is an officer who performs the duties of Headquarters Assistant and Senior Magistrate and another who combines the duties of Treasury Officer and Headquarters Magistrate.

The Revenue Department of the District Office is in charge of an *Akunwun*. There is one whole-time Additional Magistrate and the *Akunwun*, and judicial officers are also magistrates. The Subdivisional Officers are also Subdivisional Magistrates and each Township Officer is also Township Magistrate. The Additional Magistrate at Pyinmana is also in charge of the sub-treasury which is busier than the headquarters treasury at Yamèthin. There is also a sub-treasury at Pyawbwè in charge of the Township Officer. There are Assistant Township Officers, who are magistrates at Yamèthin, Pyinmana and Lèwe. Benches of Honorary Magistrates sit at Yamèthin, Pyawbwè, Pyinmana and Lèwe.

List of Deputy Commissioners in the Yamèthin District since Annexation.

From 1886 to 1894 the present Yamèthin and Pyinmana Subdivisions were separate districts. During that period the Deputy Commissioners were :—

Year.	Yamèthin District.	Year.	Pyinmana District.
1886—88	Mr. S. H. T. della Corneuve, U.C.S.	1886—89	Mr. C. E. Gladstone.
1888—91	Mr. N. G. Cholmeley, B.C.S.	1887-88	Mr. H. L. Eales, B.C.S.
		1888-89	Mr. A. T. A. Shaw, B.C.S.
		1889—92	Mr. W. N. Porter, U.C.S.
1891-92	Mr. J. N. O. Thurston, U.C.S.	1892-93	Mr. A. S. Fleming, I.C.S.
1892	Mr. G. Carmichael, I.C.S.	1893	Mr. L. H. Saunders, I.C.S.
1892—94	Lt.-Col. T. M. Jenkins, I.S.C.		Lt.-Col. C. L. O. Reid, I.S.C.

In 1894 the Pyinmana District became a subdivision of the Yamèthin District. Since then there have been the following Deputy Commissioners of the district :—

1894	Lt.-Col. T. M. Jenkins I.S.C.
1894—96	Lt.-Col. W. F. H. Grey, I.S.C.
1896—99	Mr. D. Ross, I.C.S.
1899—1902	Mr A. L. Hough.
1902—05	Major G. E. T. Green.
1905—08	Mr. A. E. Rigg, I.C.S.
1908	Mr. E. J. Farmer, I.C.S.
1908-09	Mr. A. E. Rigg, I.C.S.
1909—12	Mr. H. L. Stevenson, I.C.S.
1912—21	Major F. H. Biggwither, I.A. (*Kya-A-yebaing*).
1921-22	Mr. R. B. Smart.
1922—24	Mr. H. H. Craw, I.C.S.
1924-25	Capt. R. R. Ewing, I.A.
1925-26	Mr. J. A. Stewart, I.C.S.
1926	Mr. J. E. Baker.
1926—28	Lt.-Col. H. P. M. Lord, I.A.
1928—30	Major R. W. Barker, I.A.
1930-31	Mr. J. W. Adamson.
1931	U Ka, B.C.S.
	Mr. A. J. Page, I.C.S.
1931-32	U Maung Gale (8), K.S.M.
1932	Mr. R. E. McGuire, I.C.S.

Village Administration.

The village-tract is still the primary unit of administration. Each village-tract is under a headman or *thugyi* assisted (or hindered) by a Village Committee. Each village in the tract is looked after by a *ywagaung* nominated by the headman. Though the direct powers of the headman have

been curtailed in recent years he still retains considerable authority and influence and remains the pivot of the administration. His election is by popular vote subject to the confirmation of the Deputy Commissioner who takes hereditary claims into consideration. In most cases the hereditary candidate, if he is any good, is either unopposed or secures a substantial majority. The disorder in Lower Burma may perhaps in part be attributed to the absence there of hereditary headmen with wide personal and family influence such as are still found in Yamèthin and other districts of Upper Burma.

There are 355 headmen in the district of whom 189 are in the Yamèthin Subdivision and 166 in the Pyinmana Subdivision. Headmen are remunerated by a commission on the revenue collected by them. The average annual commission earned by headmen is Rs. 373 in the Pyinmana Subdivision but only Rs. 159 in the poorer Yamèthin Subdivision. The average for the whole district is Rs. 266.

Under the Burmese régime and in the early years of British rule headmen were grouped together in circles called *myos*, each under a superior headman or *myothugyi*. In accordance with the policy of Government these *myos* are being broken up on the death of the incumbents and the subordinate headmen placed in independent charge of their village-tracts. There are now only three *myothugyis* left—at Yezin, Shwemyo and Kyidaunggan, all in the Pyinmana Subdivision—having 20 subordinate headmen under them. The *myothugyi* is sole headman of the village-tract in which he lives and he collects the revenue therein. In the other village-tracts of the *myo* the subordinate headmen collect the revenue but receive only half the commission, the *myothugyi* receiving the other half.

Civil Justice Administration.

The administration of Civil Justice is controlled by a District and Sessions Judge with headquarters at Pyinmana. He is assisted by an Additional Judge of the District Court for cases from the Yamèthin Subdivision, who is also the Subdivisional Judge for both subdivisions (Yamèthin and Pyinmana). Like the *wun* in Burmese times the Subdivisional Judge is peripatetic between Pyinmana and Yamèthin. The Judge of the three linked Township Courts of Yamèthin, Pyawbwè and Yanaung holds his Court in Yamèthin for cases arising in Yamèthin Township, and at Pyawbwè for cases arising in Pyawbwè and Yanaung Townships. The Township Judge of Pyinmana and Lèwe holds his Court at Pyinmana. There is also an Additional Judge for the Township Courts of Pyinmana and Lèwe sitting at Pyinmana. These officers have Small Cause powers up to Rs. 100.

Appeals from the Township Courts and Subdivisional Courts lie to the District Court and appeals from the District Court lie to the High Court of Judicature at Rangoon. The period allowed for appeal to the District Court is 60 days and to the High Court is 90 days.

Village Committees have been authorized to deal with suits of Civil nature of small value. There is no right of appeal but the decision may be revised by the Township Officer. The litigants have the option of instituting such suits before the Village Committee or in the Civil Courts.

The following statement shows the total number of suits for disposal, the number disposed of and their value for each grade of Court in the last three years in Yamèthin District :—

Serial No.	Name of Court or Courts.	1928			1929			1930		
		Total for disposal.	No. disposed.	Value of suits.	Total for disposal.	No. disposed.	Value of suits.	Total for disposal.	No. disposed.	Value of suits.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
				Rs.			Rs.			
	District Court, Pyinmana.	25	20	6,68,258	26	21	11,84,814	29	14	1,92,173
2	Subdivisional Court, Yamèthin and Pyinmana.	125	111	2,22,036	116	110	1,18,117	113	96	2,08,921
	Township Courts of Yamèthin District.	1,142	1,132	2,32,615	1,168	1,151	2,36,959	1,012	976	2,12,249
	Small Cause Court, Yamèthin, Pyawbwe, Pyinmana and Lèwe.	628	626	30,717	701	700	34,853	545	543	25,444

The Police are in the charge of a District Superintendent resident in Yamèthin assisted by two Deputy or Assistant Superintendents of whom one is Headquarters Assistant and the other is in charge of the Pyinmana Subdivision with headquarters at Pyinmana. The district is divided into three circles each under an Inspector with headquarters at Yamèthin, Pyinmana and Lèwe and there is also a Detective Inspector and a Court Prosecuting Inspector. Police.

The Force was raised at the time of the Annexation to assist in the work of pacification. Police Stations were established at Yamèthin, Pyawbwè, Yanaung, Kyundon, Yindaw and Nyaunggaing in the Yamèthin Subdivision and at Pyinmana, Kyidaunggan, Thayetkon, Ela, Lèwe, Taungnyo and Pingamyaung in the Pyinmana Subdivision. On the recommendation of the Police Enquiry Committee appointed

in 1924 the stations at Yindaw, Kyundon, Taungnyo, Thayetkon and Pingamyaung were abolished. This Committee also recommended a considerable reduction in strength especially in the lower ranks with a view to improving the pay without increasing the total cost of the Force. The present strength is five Inspectors, 47 Sub-Inspectors, 11 Station Writers, 39 Head Constables and 253 Constables distributed as shown below :—

Police Station.	I.P.	S.I.P.	S.W.	H.C.	P.C.
Headquarters and Yamèthin.	3	26	2	9	75
Nyaunggaing ...	...	2	1	2	13
Pyawbwè ...	...	3	2	5	24
Yanaung ...	...	2	1	3	21
Kyundon (Outpost) ...	...	...	...	1	5
Pyinmana ...	1	5	2	10	64
Kyidaunggan ...	...	3	1	3	15
Lèwe ...	1	3	1	3	21
Ela	...	3	1	3	15
Total ...	5	47	11	39	253

Military Police.

The headquarters of the Reserve Battalion, Burma Military Police, are situated on rising ground to the west of the Railway and one mile north of the Town of Pyawbwè.

Orders for the formation of this Battalion were first issued in 1889 with seven Companies of 791 men, but this strength has from time to time been changed according to circumstances. The present strength of the Battalion is 1,279 of all ranks comprising—

Infantry—
(1) Sikhs ... ... 2 Companies.
(2) Punjabi Mohamedans ... 2 "
(3) Gurkhas ... ... 4 "
Mounted Infantry ... 8 Troops (4 Sikhs and 4 Punjabi Mohamedans).
Signal Centre which includes both Visual and Wireless ... 159 of mixed classes.

Attached to the Reserve Battalion is the Equitation School and the office of the Remount Officer for the whole Force.

Since 1889, 45 British Officers from the Regular Army have commanded this Battalion and 35 British Officers from the Army and 6 Naib-Commandants from the Burma Military Police have also served as Assistant Commandants.

The present Commandant, Lieutenant-Colonel H. F. E. Childers, I.A., who is also Remount Officer, Burma Military Police, took over the command of the Battalion in 1919. There are two Assistant Commandants, and as Naib-Commandants Khan Bahadur Jalal Din "Sardar Bahadur," Assistant Remount Officer, and Khan Bahadur Atta Mohamed "Sardar Bahadur," Visual Signalling Officer.

The Battalion is a reserve for the whole of the Burma Military Police and was formed with a view to having at the immediate disposal of the Local Government a force available for any special Detachment or Column duties, to reinforce any Battalion or which could be moved to any point for the suppression of local disturbances. For this reason men of the Reserve Battalion see frequent service on the Frontier, and usually form at least a part of every Force detailed for any special purpose.

During the Great War, 1914—18, 622 men volunteered and served with Regular Units of the Indian Army. Of these 45 were killed in the War, five received the Indian Distinguished Service Medal, one the Meritorious Service Medal, one the Indian Order of Merit for personal gallantry on the Frontier and later the "Croix-de-Guerre" whilst on active service in Mesopotamia.

For ordinary administrative purposes the Yamèthin District is included in the area of the Mandalay Battalion from which a detachment of 65 men in charge of an Indian Officer and under the local command of the District Superintendent of Police is stationed at Yamèthin for employment on the ordinary Military Police Work within the district.

Crime. Yamèthin is a definitely criminal district and the Pyinmana Subdivision is rather worse than the Yamèthin Subdivision. Some improvement had been made during the years after the war but in 1924 there was a violent outbreak of crime throughout the province in which Yamèthin took its full share. This outbreak was undoubtedly due to the preaching of subversive *wunthanu* doctrines and the no-tax campaign in the Lower Burma. The situation was again slowly being brought back to normal when the unrest caused by the rebellion, combined no doubt with the general stringency, produced an even more alarming tale of murder and dacoity. 1931 was the worst year since the Annexation and 1932 shows no signs of improvement at the time of writing. The decrease in the total number of crimes in Classes I—VI shown in the subjoined table is due to the pre-occupation of police with rebellion tattooing, dacoity and murder so that they had no time to deal with the less serious crimes nor were the people in a mood to report or to assist the investigation.

Year.	Dacoities.	Murders.	Cattle thefts.	True cognizable cases—Classes I to VI.
1922 ...	28	21	167	1,644
1923	18	27	155	1,741
1924 ...	40	37	191	2,125
1925 ...	33	37	275	2,189
1926 ...	49	29	245	2,417
1927 ...	46	38	207	2,052
1928 ...	18	44	183	2,209
1929 ...	8	41	171	2,064
1930 ...	15	47	164	1,821
1931 ...	106	39	182	1,818

Rebellion. Throughout 1930 and earlier there was a strong *wunthanu* movement in the district chiefly directed against the payment of taxes and the agitation became more acute owing to the failure of crops in that year. This agitation naturally produced a feeling of unrest and when open rebellion broke out in Tharrawaddy, Insein and Pyapôn Districts during Christmas Week trouble was to be expected in Yamèthin also. The outbreak actually occurred on the 4th January 1931. The local leader was U Thuttalawka, a *pôngyi* of Htilaing Village, seven miles south-east of Yamèthin, who with a following from Htilaing and the neighbouring villages rose in revolt about 9 a.m. on that date. The Htilaing headman's gun was seized and the headman himself was forced to accompany the rebels. He however managed to effect his escape from the gang and brought news of the outbreak to Yamèthin about 12-30 p.m. the same day. The district authorities were not found unprepared and the Civil and Military Police who had been warned to hold themselves in readiness ever since the Tharrawaddy outbreak went in immediate pursuit of the rebels who had proceeded in an easterly direction towards the Shan foothills intending to loot guns en route. Contact was made with the rebels at Htugon Village the same evening while they were attempting to obtain possession of the headman's gun. The Police proceeded to surround them but the alarm was given and the gang, later found to consist of some 35 men,

managed to slip away in the gathering darkness and trace of them was lost in the thick jungle. However a strong force of Military Police from Pyawbwè, which very soon arrived on the scene, surrounded the whole area and pursued the rebels into the sparsely inhabited Shan hills, where they were unable to obtain supplies. U Thuttalawka, thereupon ordered his followers to return to their villages where they surrendered on the 6th and 7th, all absentees having been checked up in the mean time. U Thuttalawka himself was captured on the 9th January and the rebellion was over. The exploits of the rebels were the seizure of the Htilaing headman's gun, the burning of 56 houses at Hmanzi, and of 13 houses at Wadaw, the murder of a police constable at Htugon and the wounding of the Htugon headman. U Thuttalawka was condemned to death and 27 of his followers to transportation or imprisonment.

In Yamèthin rebellion was suppressed but a very serious outbreak occurred in the adjoining district of Thayetmyo and also in Prome. To enable work to be carried on in the forests in the south and west of the Pyinmana Subdivision and to prevent loss of life and property a small force of Karen levies was raised and placed under the command of Mr. G. H. Oglivie, Deputy Conservator of Forests. The presence of this loyal and well-behaved force inspired confidence in the jungle dwellers and was no doubt responsible for the absence both of local trouble in those remote areas and of marauders or fugitives from the disaffected districts.

The jail is situated away from the town to the north-west of it. The institution is intended to accommodate 141 inmates (males 87, females 6 and undertrials 48), and when overcrowding occurs it is relieved by transferring the surplus to the Toungoo Jail as far as possible. The average population during 1931 was 180. Yamèthin Jail.

The admissions to the jail since 1928 were as follow :—

	Convicts.		*Undertrials.*	
	Males.	Females.	Males.	Females.
1928 ...	826	34	694	14
1929 ...	727	30	538	14
1930 ...	728	16	565	16
1931 ...	729	28	790	13

The undertrials in 1931 were very numerous on account of the rebellion and the consequent increase of crime in the district. The institution is mainly intended for first offenders up to a term of five years. The total cost of maintenance in 1928 was Rs. 21,157 which rose up to Rs. 25,627 in 1931 and the average total cost per head was Rs. 115 in 1928 and

Rs. 138 in 1931. The chief forms of labour on which prisoners are employed are aloe mat making, paddy grinding for prison use, carpentry, cane work and gardening. These are not very profitable as orders received are not many. Aloe mat making is a good industry but there is no outside demand for these mats and so they are used instead of gunny for the prisoner's bedding. The health of the prisoners is good. The daily average sick was only one in 1931. No epidemic diseases occurred in the jail although the district is liable to plague, small-pox and cholera. The water supply is very carefully watched and is good. The staff consists of two jailors, one head warder and 16 warders. The Civil Surgeon of the district is also the Superintendent of the Jail.

Excise.

The permanent Excise Staff consists of a Superintendent of Excise, two Inspectors of Excise, two Deputy Inspectors of Excise, seven Sub-Inspectors of Excise, one clerk and 13 Excise peons.

There are opium shops at Pyawbwè and Pyinmana. The former supplies ticket holders in the Yamèthin Subdivision and the Meiktila District (except Mahlaing Township) and the latter supplies ticket holders in the Pyinmana Subdivision. In 1930 there were 169 registered consumers of whom three were Indians and the rest Chinese. Yamèthin District adjoins the Southern Shan States from which large quantities of opium are smuggled at all times of the year by various passes through the hills. A proportion of the smuggled opium is taken through the Yoma to the Taungdwingyi Subdivision but the greater part is sent by rail to Lower Burma and it is believed that all railway stations are used as despatching places. Chinese are, as a rule, the chief agents of this nefarious traffic. The average wholesale price of a seer of smuggled raw opium is reported to be Rs. 60. Considerable quantities of this illicit opium are seized every year as indicated by the following figures:—

Seized by	1929-30	1930-31.
	Tolas.	Tolas.
Excise Staff ...	4,440	7,652
Police ...	3,615	2,148
Headman and others	632	1,180
Total ...	8,687	10,980

The most notable seizure was of 2,240 tolas (16 viss) of Shan Hlawze opium at Ngayanchaung about four miles from the Shan border in which a party of Excise officers disguised as Chinese and posing as potential buyers succeeded in arresting two Shan smugglers as well as seizing the opium. Other large seizures during 1930-31 were—1,218 tolas near Pyawbwè, 1,013 tolas near Yamèthin, 986 tolas on the train, 720 tolas at Pyinmana Railway Station, and three others of over 500 tolas.

As everywhere in Upper Burma, the only liquor licenses (apart from a few licenses for the sale of foreign liquor) are for the sale of *tari*. Shops for the sale of *tari* have been licensed at Nyaunglun East, Tatkôn, Theingon, Yamèthin and Myohla in the Yamèthin Township ; at Pyawbwè, Mindan, Shwenyaungbu and Shweda-Thazi in the Pyawbwè Township ; at Pyinmana, Kyidaunggan and Shwemyo in the Pyinmana Township ; at Ela, Lèwe and Kantha in the Lèwe Township ; and at Yindaw and Yanaung in the Yanaung Township. There are foreign liquor shops only in the towns of Pyinmana, Yamèthin and Pyawbwè.

Spirituous liquor is distilled for private consumption in most of the villages near the edge of the Shan and Yoma jungles (and probably elsewhere) and is regarded as prophylactic against malaria.

Registration.

The Deputy Commissioner is *ex-officio* Registrar assisted by a non-official Joint Sub-Registrar who is also Joint Registrar of the district. He is always a pensioner. There are Registration Offices also at Pyinmana and Pyawbwè where there are non-official Joint Sub-Registrars. There is one Registration clerk in each office.

For the triennium ending on the 31st December 1932 the total number of documents registered was 2,775 with an aggregate value of Rs. 31,32,281 as against 3,871 with an aggregate value of Rs. 53,87,272 in the previous triennium. Fees collected fell accordingly from Rs. 16,802 to Rs. 11,735. The decrease is due to the severe trade depression of 1931-32 and brings the figures below those for the triennium ending 31st December 1925 when 2,979 documents with an aggregate value of Rs. 42,61,889 were registered. The value of property dealt with in Pyinmana considerably exceeds the combined values of Pyawbwè and Yamèthin.

Agricultural Department.

The headquarters of the East Central Agricultural Circle are situated at Pyinmana. Here there is one Deputy Director of Agriculture and one Assistant Director of Agriculture. In each subdivision there is a Senior Agricultural Assistant employed on District Work in

immediate touch with the villagers. There are two farms in the district, one at Tatkôn and one, the Circle Central Farm, at Pyinmana.

The work of the Agricultural Staff has been directed mainly to the following objects :—

(1) The improvement of the staple crops of the district.

(2) The introduction of valuable subsidiary crops.

(3) The improvement of the existing practice of agriculture by introducing better rotations, and better methods, for example the use of row sowing for broadcasting of some seeds ; by demonstrating the conservation and more general use of farm yard manure, and the use of chemical fertilizers ; by introducing simple and inexpensive but valuable implements.

(4) More recently the department has undertaken the important work of breeding Burmese cattle in order to preserve and improve the indigenous breed of work cattle.

Under the first item considerable success has been achieved in Yamèthin Subdivision in substituting, particularly in certain areas normally irrigated from tanks, a selected strain of *taungdeikpan* paddy for the local strain which is impure and badly contaminated with red grain. This is commented upon in a recent Settlement Report. To a lesser extent selections of Mandalay *ngasein* and of a Hmawbi *ngasein* paddy are cultivated widely in suitable tracts throughout the district. The well known wilt resistant Karachi gram has been established in Pyawbwè Township. In Pyinmana area a very valuable new cane recently introduced to the Central Farm bids fair to replace rapidly the two local strains. From the Tatkôn Farm especially high grade seed of all the more important pulse crops is distributed and some recently selected heavy yielding strains of sesamum are now being finally tested in cultivators' lands before being passed out into general use.

Under the second item may be noted the introduction of short-lived erect types of groundnuts in the district, of a new millet for fodder purposes, *viz.*, saccoline jowar, of some short-lived paddy types for precarious areas, and of the Burma Butter Bean. In point of numbers disposed of the most successful new implement is the "Theikpan" plough—a model of the western plough with share and mould board complete after the pattern of the Burmese plough. The adoption of this new plough freely in Yamèthin is all the more satisfactory as excellent ploughs of this type are being turned out by some village blacksmiths in Pyawbwè Township and its distribution is quite independent of

departmental encouragement. Of other implements mechnical chaff-cutters for preparing millet for fodder and bullock cultivators for various dry cultivation crops have proved most popular. In the south of the district the introduction of an economical type of sugar-cane boiling furnace has effected a substantial reduction in the cost of *kyanthaga* manufacture.*

The stock breeding operations recently undertaken at Tatkôn Farm have been noted in the account of that farm in Chapter IV.

The department through the agricultural seed and implement advances functions as a seed store for much of the district, provides annually an Agricultural Calendar and numerous leaflets on crops and crop pests, provides short courses of practical training for cultivators and their sons, conducts field demonstrations, organizes occasional ploughing competitions and agricultural exhibits at the major pagoda festivals and generally endeavours to arouse the interest of the agricultural classes in measures to improve their lot.

Yamèthin is the headquarters of a Veterinary Inspector who holds the combined charge of the Yamèthin and Kyauksè Districts under the control of the Deputy Director of Veterinary Services, Central Circle, whose headquarters are at Meiktila. Veterinary.

Prior to 1930 there was a Veterinary Assitant for each of the five townships but the number of such permanent charges is being reduced to three, further assistance being obtained as required from Flying Column Reserves.

The following statement shows the number of cases of disease reported during the last five years :—

Year.	Rinderpest.	Anthrax.	Foot-and-Mouth Disease.
1926-27 ...	16	16	20
1927-28 ...	...	...	3
1928-29 ...	102	3	21
1929-30 ...	29	...	...
1930-31 ...	184	10	21

During the last three years, 1930, 6,744 and 4,839 animals were inoculated out of which only 2, 13, 10 succumbed to the disease. During the last five years an average number of over 4,200 animals has been treated for various diseases.

Government Stud Farm.

The Government Stud Farm at Pyawbwè was started in 1920 and, though a separate concern, obtains its establishment from the Reserve Battalion, Military Police, the Commandant of which is also Officer-in-charge, Government Stud Farm.

The farm consists of 11 blocks of buildings situated on either side of the Main Entrance Road leading to the Reserve Battalion Lines, providing stable accommodation for 8 stallions, 36 brood mares and foals and some 150 young stock. There are 400 acres of fenced-in paddocks, and a six furlong race course. These are situated to the west of the Reserve Battalion Lines, and on either side of the Trunk Road from Rangoon to Mandalay.

The sanctioned establishment of brood mares is 36, which are borne on the strength of the mounted infantry or transport of the Burma Military Police. The present number of stallions is six, *viz.*, four T.B. English and two Arabs.

The cost of maintenance of these stallions and of all young stock is borne by the Stud Farm, as also the allowance of all personnel employed in the farm.

The stallions are sent on circuit throughout the pony breeding districts of Burma, on the eastern side of which Pyawbwè is situated. Service fees charged for these stallions vary from only Rs. 100 (the maximum) to Rs. 60. Pony breeders of the poorer classes are only charged half these fees at the time of service, the remaining half being payable when the foal is born, but until payment of this latter half-fee is received no service certificate is issued and without this certificate the foal cannot be registered in the Rangoon Turf Club Stud Book. Owners are also permitted to send their mares to the Stud Farm for service by any of the stallions.

The objects of the farm are to assist in improving the breed of pony in the country and to provide a certain number of mounted infantry remounts for the Burma Military Police. The Local Government have also approved the proposal for selected colts bred at the farm to be sent to stand at principal villages in the pony breeding districts.

Ecclesiastical Church of England.

A Church of England Chaplain came with the troops to Ningyan (Pyinmana) in 1885 and when the military departed in 1889 and 1890 the Society for the Propagation of the Gospel took on the work and a Burmese priest the Reverend J. San Baw was appointed to Pyinmana. The mission was however soon given up and the S.P.G. Chaplain from Toungoo, Reverend G. W. Burroughs, paid periodical visits to Pyinmana. He was succeeded in 1893 by the Reverend J. Hackney who however appears to have resided at least for part of his time—in Pyinmana. Meanwhile nothing

is heard of Yamèthin until February 1892 when at a meeting at the Diocesan School, Rangoon, the Bishop—Dr. Strachan—said that he was willing to attach Yamèthin definitely to the Meiktila Government Chaplaincy but that such an arrangement could not be brought into being for some six months owing to chaplains going on leave. The proposal however was not agreed to and eventually it was decided that the Railway Chaplain should visit Pegu and Tharrawaddy each one Sunday in the month and divide the other Sundays between Insein and Yamèthin. In 1894 work was begun on the Church of All-Saints Yamèthin. This church was built out of Imperial Funds at a cost of Rs. 4,731 and is maintained out of Provincial Funds. It was dedicated on the 10th July 1895 by Bishop Strachan, assisted by the Reverend W. B. Caldicott, 2nd Railway Chaplain. On the way to this Dedication the Bishop had called in at Pyinmana for he writes "on 5th July Mr. Hackney, Mr. Rice and myself went with deed in hand to indentify the plot of land which had been made over to the S.P.G. Strange to say, though the boundaries were defined in the deed, we found it impossible to identify the land, so that any action had to be deferred for further enquiries." Nothing is known of this site. In September of the same year the Bishop informed the Deputy Commissioner that he had just appointed a resident clergyman, and asked for permission to use the disused powder magazine (in the compound of the Divisional Forest Officer, Yamèthin) as a church. It is not known what transpired but Mr. Hackney—for presumably he was the resident clergyman referred to by the Bishop—went on leave in 1897 and no S.P.G. missionary has been stationed in Pyinmana since The present little church at Pyinmana stands on the site of the old Police Supply Store and was built by Mr. E. C. Florey on land acquired in 1908. The deed of grant was signed on the 26th May 1908 by Mr. A. E. Rigg, Deputy Commissioner, and Reverend F. E. Trotman, Railway Chaplain. The church was dedicated on Sunday, 2nd May 1909, by the Reverend G. H. Collins, acting Archdeacon of Rangoon. The church is Diocesan property. Mr. Florey, the builder and donor, is still living in Pyinmana. The furniture and fittings were given by residents of Pyinmana and elsewhere. The font was made in Shwebo under the direction of the late Reverend H. M. Stockings and the altar was carved in England and sent out by Mr. Trotman's mother.

Under the present arrangements the Reverend T. Fisher, Railway Chaplain, Insein, pays monthly visits to Yamèthin and Pyinmana. Although the S.P.G. has no resident missionary

the Bwe Mission from Toungoo comes along the hills into the Pyinmana Subdivision to visit the three or four villages of "Tee Day Po" who joined the mission in 1908.

A Tamil priest, the Reverend J. P. Joseph, goes up and down the railway line shepherding the scattered Tamil Christians.

Roman Catholic Church. The Roman Catholic Mission at Toungoo had begun to convert the Karens in Bawgata, a tributary Karen State in the south-east of Pyinmana Subdivision, by about 1880, and soon acquired great influence there. In the ensuing 25 years they converted all its 800 inhabitants, and set up four schools with resident teachers, but these had to be given up in about 1920. The Italian priest at Maungblaw visits each village about thrice a year.

Priests had occasionally visited Pyinmana and other parts of the district from Toungoo before the Annexation. But early in 1886, the Commander-in-chief of the Expeditionary Forces asked the Bishop of Mandalay for a chaplain to follow the troops that were sent to pacify the districts of Myingyan, Meiktila, Yamèthin and Pyinmana. Father Usse, afterwards Bishop of Northern Burma, was first appointed. But soon after, a second chaplain being needed, Father Huysman was selected. From Myingyan, the headquarters, the troops proceeded to Meiktila where Father Usse followed them, while Father Huysman remained at the headquarters. Father Usse went as far as Pyinmana and settled there for a while. Later on, about the beginning of 1887, Father Huysman accompanied another detachment to Meiktila, and then to Yamèthin were he started the Mission.

Two Burmese *pôngyis* from a *kyaung* on the west side of the bazaar had taken part in the rebellion ; they were caught redhanded and were hanged on the premises. The *pôngyi kyaung* with the ground and all appurtenances was given by the Government to Father Huysman who immediately transformed one of the buildings into a residence for the priest and with the remaining materials built a small chapel. He also opened an Anglo-Vernacular Primary School which was under the management of the Mission for some 16 years and was then transferred to Government. This formed the nucleus of the actual Government School of Yamèthin.

Yamèthin was then a centre from which the Roman Catholic Missioners would visit a few Christian villages—Shwemyo, Maubin, Thayagon. From 1887 to 1909, several priests were successively in charge of that station : after Father Huysman, Fathers Legendre, Ruppin, Vuillez, Bouffanais, Renolleau. But with the exception of Father Ruppin who was in charge for over 14 years, the others did no more than pass through the station.

Meanwhile in Pyinmana Father Usse had taken up his residence on the present site of Steel Brothers' compound and made himself of considerable help to the military authorities being among the few Europeans with previous knowledge of the Burmans and their language. In 1887 the military transport lines were evacuated and the area added to the Mission compound with a grant in proper form. In 1890 came Father Accarion who built the present church and an Anglo-Vernacular School to the east but the school had to close after two or three years. A Burmese priest named Father Francis came in 1891 but died the same year and his tomb is in the new cemetery. Another Burman priest, Father Thomas, died of fever in 1894 and was buried near Father Francis. In 1892 Father Ruppin succeeded Father Accarion and continued to work in Pyinmana while he was stationed at Yamèthin. In 1895 a clergy house was built and students for the priesthood were taught. The house was burnt down in 1905 and some of the students migrated to Moulmein until a Seminary was reopened in Upper Burma in 1912. Steel Brothers applied for empty site, paid some compensation and were granted the land.

In 1909, a young priest, Father Hudry was sent to Yamèthin. The church built by Father Huysman was too small ; it was too far. It was decided to get a new plot of ground near the jail, close to the railway quarters and to erect on it a substantial church. In 1910-11, Father Hudry did all he could to bring to completion the actual church. But his health broke down ; he returned to France where he died in 1912. The church was then almost completed : the final touch was put to it by Father Mandin and Father Accarion. In 1918, when Father Accarion was forced to retire, the post was filled by Father Falière, now Vicar Apostolic of Northern Burma, who was succeeded in 1926 by Father Audrian.

Yamèthin is now visited once or twice a month by a native priest, Father Leo. The Catholic population of Yamèthin according to the last census of 1931 is approximately 200, two-thirds of whom are Anglo-Indians, belonging to families of railway employees.

No priest has actually been stationed in Pyinmana since 1909. Monthly visits were paid by the priest in charge at Yamèthin until 1927 when Pyinmana was transferred to the Toungoo diocese and was visited from Toungoo by Father Resinelli and then by Farther Barbieri. At present Father Tombaccini pays a monthly visit to hold religious services. The Roman Catholic Mission at Toungoo intends to station a priest a Pyinmana again as soon as possible. The communities in the other villages have died out.

American Baptist Mission. The American Baptist Mission began work at Pyinmana as an outstation in 1890 under Reverend H. P. Cochrane who was stationed at Toungoo. A registered Anglo-Vernacular School was opened in this year on the east side of the bazaar with U Po Tsoe as the first headmaster. U Po Hline was transferred to Pyinmana for the evangelistic work and with him as the first pastor the teachers and new converts were organized into a church.

Reverend and Mrs. W. A. S. Sharp were the first missionaries to reside at Pyinmana and came in 1903 having been in charge of this work previously from Toungoo during the furlough of Mr. Cochrane in 1896—99. In 1904 the house and compound at Kyauktaung quarter adjoining the Kan-u *kyaung* were purchased for a Mission residence. In 1905 Mr. Sharp took over charge of the Chin work of the district formerly directed from Thayetmyo and founded the Christian Chin Forest Village of Hebron.

Reverend L. H. Mosier took over charge from Mr. Sharp when he left Burma permanently in 1907 and remained till 1913. Under his charge the Anglo-Vernacular Middle School grew to 343 pupils and a new site for the school was purchased between Merchant Street and Porter Road and appropriations secured for a new building. Mr. Mosier toured extensively among the villages preaching and distributing tracts. Bubonic plague which first started at Pyinmana in 1905 was raging and the people at first thought he was an agent of Government scattering plague to kill off the Burmans and often they closed the village gates and barred them with thorns to keep him out.

Dr. Robert Harper, M.D., had charge from 1913 to 1915 during Mr. Mosier's furlough and erected the teak school building now occupied by the American Baptist Mission High School. Mr. Mosier returned in 1915 and continued in charge till 1917.

Reverend B. C. Case took over charge from Mr. Mosier in 1917 and has continued till the present (1932) except during periods of furlough.

The American Baptist Mission work extends to Yamèthin where there is an evangelistic worker and a building and compound east of the bazaar.

At Lèwe is a vernacular school with two teachers and an evangelistic worker. The Mission compound with the school building is located west of the Public Works Department Inspection Bungalow. Some poultry and pig improvement work and night classes for adults are carried on from this centre.

At Shwemyo there is a vernacular school with one teacher located east of the railway station. Here a centre for poultry improvement and egg marketing is conducted.

Mission work is carried on among the Chins in five villages. At the forest village of Hebron is a church with a pastor and a vernacular school with one teacher. At Kantha is located a church and pastor and a vernacular school with two teachers. This is also a centre for poultry improvement and egg marketing. Close by is the forest village of Windegu which has a school and one teacher. Pinthaung and Kyauk-o at the foot of the Eastern Yomas each has a vernacular school with one teacher and a church is organized for the two villages combined.

Altogether there are 255 members of the Chin churches and 355 members of the Burman churches of the district.

The American Baptist Mission High School, Pyinmana.—There are 278 pupils in the American Baptist Mission High School at Pyinmana and 12 teachers. U Tun Myat, B.A., is the headmaster. The school was first registered in 1890 and the High Department was started in 1917. It has a small boarding department for boys and girls, the school being a mixed school.

The Mission Agricultural School and Farm.—The Mission Farm was started at Pyinmana as soon as Mr. Case arrived in 1917 by growing sugar-cane on five acres and rearing pigs and poultry. In 1918 about 15 acres of paddy land were added. In 1922 the Government acquired 180 more acres and leased the area to the Mission for the use of an Agricultural School. This school was opened on 6th June 1923 when 39 boys were enrolled. In 1931-32 the enrolment reached 104, and the Government grant for the school was Rs. 22,000. Because of financial stringency the grant has been reduced to Rs. 10,000 for the year 1932-33 and the number enrolled has been about 80. The average age of those entering the school has been 18 years and the last graduating class numbered 21. The school trains young men who go back to the service of the villages. Up to the present 58 per cent of the graduates have gone back to do agricultural work with their own hands and 88 per cent are engaged in some work directly serving rural communities.

Only a fourth standard vernacular education is required for admission to the school, the instruction being in Burmese, and the course covers four years. Students spend three full days per week in practical field work for which they are paid wages, and two-and-a-half days are spent in class work including manual training in bamboo and wood work.

About half the time for class work is given to literary subjects such as Burmese, Arithmetic, Geography, Hygiene and English. The agricultural course includes, in the first year, Vegetable Gardening ; the second year, Field Crops ; the third year, Animal Industry including cattle, swine, and poultry, and Farm Engineering ; the fourth year, Farm Management, Fruit Gardening and additional studies on crops and animals.

The school buildings cost Rs. 1,20,000 about half of which was given by Government and the grounds cover 30 acres. The staff consists of three missionaries, Reverend B. C. Case, Reverend J. M. Smith and Mr. Wm. Cummings, and two literary teachers, four overseers, one mechanic, one carpenter and three clerks.

The School Farm has 150 acres under cultivation of which 80 acres are under paddy, 25 acres under maize, 15 acres under *pèbok* (Soya Bean) a very promising crop little cultivated in the vicinity, eight acres of sugar-cane and ten acres devoted to vegetable gardening and about two acres in fruit trees. There are 107 head of cattle including a few Scindi bulls and cows ; 144 pigs including the British Big Black and Berkshire breeds ; 192 fowls which include the Barred Plymouth Rock, Rhode Island Red and White Leghorn breeds. Rs. 11,000 worth of products were sold off the farm last year.

Village Uplift.—In addition to the regular school course village uplift work is done. Two Institutes a year are held for two weeks each, one in April and one in September in which short courses are given in Agriculture, Health, Home Economics and Recreation when Lecturers are included from different Departments of Government engaged in rural uplift.

Government has been giving aid to a project for the improvement of poultry farming in the villages by paying for Barred Plymouth Rock cockerels placed with people in certain selected villages who will remove their native cocks. Last year 26 cocks were so placed in six village centres. The hens resulting from the cross are found to lay about as well as pure bred hens under similar conditions. The cross bred cocks are bought for meat so as to continue the improvement with pure bred cocks. The village poultry keepers are visited and instructed in improved methods of feeding and care and printed circulars are distributed.

In order permanently to benefit the village poultry keepers it was found that improved marketing facilities for poultry products were needed. Eggs have been difficult to

sell in the village. Therefore the "Pyinmana Fresh Eggs" Association has been formed to help market eggs from the co-operating villages. The eggs are collected regularly, graded according to size and stamped and shipped to Rangoon and other centres.

Some of the British Big Black and Berkshire boars have been placed in a few centres for breeding. Also a considerable number of young pigs are bought regularly by villagers of the surrounding districts. Last year 41 pigs were thus sold for breeding purpose.

Health work is carried on in the villages. The Agricultural School has an outfit for the construction of bored-hole latrines lent by the Health Unit at Hlegu and these latrines have been constructed in selected villages and the people instructed in the benefits of their use. A graduate nurse has a dispensary at the Agricultural School and also visits people in the surrounding villages.

In order to produce leaders with zeal for service in rural communities, the students of the school go out and help in teaching village people improved practices during week ends especially during the cold season. The five-day bazaars of the vicinity are visited, seeds, medicines and literature are distributed and talks given. Some visit the homes and schools and give talks on agriculture and health. The school is trying to create an environment in which the villagers will be willing to receive and put to the best use the advice and assistance which are available from Government and private sources and bring a fuller life to the village people in the surrounding district as well as to the more distant parts of Burma.

Income-tax. The Income-tax Act was extended to the Yamèthin District in 1924-25. The Subdivisional Officers acted as Income-tax Officers until the appointment of a whole time Income-tax Officer in May 1926. In 1925-26 there were 148 assessees on the register and collection of income-tax and super-tax amounted to Rs. 76,434, and Rs. 4,093. In 1930-31 the number of assessees had increased to 377 and collections to Rs. 1,15,509 for income-tax and Rs. 12,397 for super-tax. About a quarter of the assessees are money-lenders and the greater part of the revenue comes from money-lenders, rice millers and timber traders in Pyinmana.

Other Departments. The administration of other departments of Government is treated under the head of the subject matter with which they deal :—Forest Department in Chapter V. Public Works Department, Roads and Buildings, in Chapter VII, Irrigation in Chapter IV. Education in Chapter XII.

CHAPTER X.

REVENUE ADMINISTRATION.

18th Century.

In 1783 A.D. or 1145 B.E. in the reign of Bodawpaya a complete record of the officials, population and resources of the whole of the Burmese Empire was made This is known as the *Shwetaik Sayin*, and was the Burmese Doomsday Book. Every official, however petty, was required to make a statement on oath of the extent, boundaries and population of his jurisdiction. In this "*Sittan* of forty-five "—(as it was commonly called to distinguish it from the similar Settlement of 1164 B.E.) the jurisdiction of Yamèthin is shown as extending 40 miles to the east to Kalaw, 40 miles to the south-west to Mt. Pozaung, west to Yelè Chaungmagyi, north-west to Yanaung and north 14 miles to approximately the present Nyaungyan. The following were the most important villages :—

Nyaunggaing.
Wadi.
Badda.
Myohla.
Paukaing.

For revenue purposes the district was divided into ten circles each under a '*kyaw-min*.' These '*kyaw-mins*' had to assist them over 70 '*gaungs*'. In those days there was no monastery land, school land or land belonging to the King's soldiers or followers. Neither was there any privately owned land. It all belonged to the King. The area of holdings worked was calculated in '*pès*.'* The universal rent paid was one-tenth of the gross outturn. In the case of paddy this rent was always paid in kind but for other crops a cash payment was made. The cultivator had to deliver this paddy in Yamèthin.

The outturn was estimated by '*lugyis*' before the crop was reaped. In addition to the one-tenth which went to the King there were other minor payments to be made, *viz.*, half a basket per cent to the '*lugyis*' and half a basket per cent to the clerk who did the measuring of the paddy. There was also a small cash payment to be made to the clerk who received it—the rate being 5 annas per cart.

If the King's official came from the King to get money or grain they could do so from the '*kyaw-min*' on presentation

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* A *pè* was a square of which each side measured 25 bamboos of seven cubits each (Crawford) and was therefore equivalent to 1·58 acres (but was often rather more). Yule states that a *pè* was supposed to produce 100 baskets of paddy.

of a document bearing the royal seal. The following is a list of the various rates of duty payable on goods imported from the Shan States :—

			Duty per hundred viss.
			Rs. A. P.
Betel-nut	...	...	1 3 0
Salt	...	...	0 3 0
Ngapi	...	...	0 9 0
Fish	...	...	1 0 0
Cotton	...	...	1 0 0
Lac	...	...	3 0 0
Tobacco	...	...	0 3 0

For raw silk the duty was 3 annas per bundle ; 4 annas for every ten articles of crockery ware ; 4 annas for every ten *dahs*. For ginger, chillies, onions, etc., there was no revenue to be paid but the customs collector was entitled to four out of every hundred viss. The customs officials were appointed by the '*myosa*.' The appointment was not permanent and the numbers appointed varied from ten to 50. Half the revenue thus collected was for the King, half for the '*myosa*.' If the royal horses or elephants were sent to be fed, or it was necessary to repair the Kyeni Tank, etc., the cost was shared equally between the King and the '*myosa*.'

Whether the statement in the Doomsday Book of Bodawpaya that there was no privately owned land at that time was correct or whether that was only a theory pleasing to that masterful monarch, at any rate by the middle of the 19th century non-State land was very definitely recognized. So much so that in the area south of the Ngalaik known as the *Toungoo nègyan sèhnit myo* an enquiry to ascertain the extent of State land was instituted by order of Mindon Min about the year 1868. The enquiry did not proceed smoothly and little progress was made in discovering lands to be State ; in all, it is said, only 300 acres, for which there had been a failure of heirs, were found. In these circumstances the Kyauktaung *Sayadaw* who was *Gaingôk* (or Buddhist Bishop) of the whole area acting as the representative * of the people suggested to the Governor that the attempt to differentiate State and non-State lands might be discontinued and that a tax might be imposed on land irrespective of tenure. The proposal found acceptance and the *kywèshin* (*vide infra*) was imposed at equal rates on both tenures. **Tenures**

*A similar instance of the intervention of the *pôngyis* in administrative matters occurred in 1873, when the *Si-sa* lands held in Meiktila and other districts by the troopers of the Shwepyi-Yanaung Regiment having been resumed by Government, the order for resumption was abrogated at the instance of the *pôngyis* of the district.

In the Yamèthin jurisdiction State and non-State land seem to have been clearly distinguished but in that part of it which is now included in Pyinmana, lying between the Ngalaik, the Sinthe and the Pozaungdaung it appears that there was in practice no differentiation and lands whether State or non-State paid revenue at the same rate per *pè*

Land distinguished as State prior to the Annexation belonged to the following classes :—

(1) *Theinzu mye.*—The land of rebels confiscated by the Burmese Government.

(2) *Sôn the amwe pyat* (Pyinmana).—Land which had reverted to Government on the failure of heirs. This is perhaps similar to (*3*).

(3) *Thugyi-cha-mye* or *daingbawmye* (Yamèthin).—Abandoned land of which the *thugyi* held charge with a view to granting it to new settlers—but generally kept for his own benefit. In particular *daingbawmye* was the name given to land which had been abandoned in the famine of 1810 and following years.

(4) *Ywa-bon-mye* (parts of Yamèthin).—Culturable land in the vicinity of village sites shared alike by the residents of the village who could have no proprietary rights to the land.

Non-State land was of two kinds :—

(1) *Dama-u-gya mye.*—Land still in possession of the original tillers. Such land is still recognized as non-State if it was cleared and cultivated before the Upper Burma Land and Revenue Regulation came into force (13th July 1889).

(2) *Bo-babaing mye.*—Lands inherited from forefathers which are of two kinds—

(*a*) *Thugaung mye.*—Land inherited and in possession of direct heirs of the original cultivators.

(*b*) *Bo-letyongaung mye* and *Ba-letyongaung mye.*—Mortgaged land obtained in the time of the occupants grandfather or father on old standing mortgages not having been redeemed within 60 years.

There was also *wuttagan* or land assigned for religious purposes. At original Settlement an area of such land measuring 43 acres was found near the Yindaw Irrigation Tank. Two-fifths of the revenue on this land was given for the support of the Mingyaung monastery of Yindaw Town.

Mindon Min's Assessment.

Non-State land does not appear to have been assessed prior to 1869 when Mindon Min introduced his reforms of the Revenue Administration. Even after this, *yas* and crops other than paddy remained unassessed and of solitary fruit trees only the "*pebin*" (palmyra) was assessed at average rate of Rs. 2 when bearing toddy.

In the Yamèthin Subdivision under the system introduced by Mindon Min in 1869 officials who had the monopoly to collect paddy land revenue fixed a lump sum in kind on each *daing* or circle and the *thugyis* levied this at certain rates.

From 1869-70 to 1873-74 these rates were :—

Irrigated	State land	...	10 baskets of paddy per *pè*.
	Non-State land	...	5 do.
Unirrigated	State land	...	2½ do.
	Non-State land	...	1½ do.

These rates were doubled in 1874-75 but from the year 1878-79 the assessment on non-State land was gradually discontinued and the State land rates lowered but it is not clear for what reason.

The total amount of land revenue fixed by the Burmese Government for each of the two tracts north and south of the Sinthe *chaung* was 50,000 baskets of paddy prior to 1874-75 and then 100,000 baskets. The tract north of the Sinthe consisted of the present Yamèthin Township and the circles of Badda and Wadi now in the Pyawbwè Township. While the southern tract took in the whole of Lèwe Township and that part of Pyinmana lying west of the Sinthe *chaung* and Sittang River.

In this latter tract, now included in the Pyinmana Subdivision, the earliest assessments on land appear to have taken the form of irregular contributions levied by influential headmen at rates varying from Rs. 1-4-0 to Rs. 3-0-0 on the area of rice land worked by a yoke of cattle.

In 1869 a regular tax called *kywèshin* (yoke of buffaloes tax) was imposed at the rate of 24 baskets of paddy on this unit in the tract lying south of the Ngalaik stream and west of the Pozaungdaung known as the *Toungoo nè-gyan*. Cultivated land of all tenures paid this tax but fallow lands were not assessed. Originally the *kywèshin* was paid in kind and the paddy was stored in a godown near the site of the present railway station in Pyinmana. Subsequently the tax was commuted at the rate of six baskets to the rupee and 8 annas was added for cost of collection (*thugyi's* commission). It remained at Rs. 4-8-0 a yoke until 1889-90 when it was doubled on account of rise in prices and Rs. 9 a yoke was paid on non-State lands outside Settlement until the introduction of fixed (lump sum) assessments in 1919.

The *kywèshin* is said to have produced prior to the Annexation about Rs. 40,000 a year. It was assessed by *myothugyis* under the orders of the *Lèwun* and it appears that many escaped taxation. Nothing was assessed to *kywèshin* but rice land. Hill cultivation or *taungya* was not taxed at all but cultivators of sugar-cane, tobacco and beans (*pègyi*) paid at the rate of Rs. 2 a *dah*.

In the area north of the Ngalaik stream and east of the Pozaungdaung range which originally formed part of the Yamèthin jurisdiction rates similar to those in force in Yamèthin were paid per *pè*. These rates were originally paid in kind and varied in amount according to the tenure of the land but the only information that could be obtained was that the amount of the tax was Rs. 2 per *pè* and it is likely that there was in practice no differentiation as regards tenure. This *pègun* prior to the Annexation is said to have produced only about Rs. 7,000. Subsequent to Annexation the rate per *pè* on non-State land remained unaltered until Settlement and was paid outside Settlement until 1919 when a fixed (lump sum) assessment was substituted.

Thathameda.

Thathameda was introduced in 1862 at the rate of Rs. 3 per household. In 1866 the rate was raised to Rs. 10 in the parts then belonging to the Yamèthin jurisdiction and Rs. 8 elsewhere. In 1871 an all-round rate of Rs. 10 was imposed except in the *Taungwin daing* which being on the Toungoo border paid only Rs. 8. Rs. 3 a household was paid by hill Karens and Rs. 8 by Shans wherever resident. Immigrants from British Burma were allowed three years remission. A few years before the Annexation the Rs. 10 rate was made universal. The tax was collected by *myothugyis* and *ywagaungs* in the month of June before the agricultural season and no remission was allowed though it was sometimes paid in two instalments. The headmen took their commission before paying in the revenue. There were variations of rates between villages as well as between individuals in the same village.

Method of collection.

The head of the Revenue Department was an *atwinwun*, who lived in Mandalay and had one *thandawzin* under him for each district. Orders came from Mandalay to the *myothugyis*, who instructed the *daingthugyis* to prepare the assessment-rolls. These were submitted before the month of *Wazo* (July) in duplicate, one copy to the *thandawzin* and one to the *wun* in Mandalay.

In the Shwepyi-Yanaung District different officials were employed. The *thugyis* submitted the assessment-rolls to the *myin-si*, who forwarded them to the *myingaung*, who in turn sent them to the *myintat-bo*. This officer transmitted them to the *myinwun* in Mandalay, who passed them on to the Revenue Officer.

The Revenue Officer examined and checked the rolls in a variety of ways and by means of different officials. The *tayasa-ye*, the *byè-taik*, the *than-zin*, the *athon-sa-ye*, the *sa-yedaw-gaing*, or the *anaung-sa-ye*.

Then an order was issued, through the same channels by which the assessment-rolls had been submitted, to the *thugyis* to collect the tax as passed. This they did and after deducting their *kaingtwet* or 12 per cent commission, made over the money to the *myothugyi*, who drew an abstract of receipts and transmitted the whole collections to the Royal Treasury.

In the *Myin nè* the *thugyis* apparently made over their collections to the *myin si*, who reported the collection to the *myingaung* and made over the money to the *myintat-bo*. By him it was forwarded to the *myinwun* in Mandalay and then credited into the treasury.

The average amount raised in the district by this tax is not known. It is believed that the result of the money passing through the hands of so many officials was that only two-thirds of the amount actually collected ever reached the Royal Treasury.

The system was not altered by the British, but greater accuracy in counting the households and better supervision produced startling differences in the sums realized.

Other Revenue.

In addition to *thathameda* and land revenue various other collections were made by the Burmese Government, of which the most important was the *sèhnit yat akauk* a tax imposed about 1863 on sales and exports to British Burma. It was collected at Pyinmana on palm leaf tickets which were resumed at the frontier. Fisheries were let out by contract under the superintendence of the *lè wun*.

Some details of Revenue.

An account of the Revenue Administration in the Burmese Kingdom is given in the Upper Burma Gazetteer from which the following figures are extracted :—

Amounts collected from the Royal paddy fields, cultivated grounds and gardens in the year 1884. *Kaukkyi* contributed 20 baskets per *pè*, *mayin* 15 baskets ; cultivated grounds paid at the rate of Rs. 4 per *pè*, vegetable gardens at the rate of Rs. 6 per *pè*.

District.	*Pè.*	*Kaukkyi* (baskets).	Gardens, etc.
			Rs.
Toungoo-Yamèthin ...	996½	54,000	3,000
Shwepyi-Yanaung ...	289¾	3,000	80
Nyaungyan	350½	3,000	...

Thathameda.

Place.	Amount in 1869.	No. of Houses, 1884-5.	Assessed Houses.	Demand.
	Rs.			Rs.
Yamèthin ...	1,28,000	21,800	19,965	1,99,650
Toungoo ...	72,000			
Shwepyi-Yanaung ...	1,68,880	16,433	13,105	1,31,050
Yindaw ...	10,354	9,520	4,920	49,200
Meiktila ...	33,601			
Pyinmana with Kyaukpadaung.	37,456	12,141	9,000	54,000
Yanaung ...	11,360	...	...	...
Tayanga ...	1,320	...	...	...
Hlaingdet ...	8,104	...	...	...
Thagaya ...	2,096	...	...	...

In the year 1884 also the Toungoo forests paid Rs. 1,80,000 in forest duties and the Hlaingdet forests Rs. 10,000, while the Toungoo customs duties amounted to Rs. 60,000. In all these, of course, Toungoo means the Toungoo *nègyan* as described earlier.

Between Annexation and Settlement.

During the interval between the Annexation and the introduction of Settlement the *thathameda* rate remained at Rs. 10 per household but certain changes were made in the assessment of land revenue especially the fixing of a tax called *ayadaw* assessable on all State land. The effect of these changes is shown in the following tables :—

In Yamèthin Subdivision.	1886—92.		1892-93.	
	Per *pè*.		Per acre.	
	Land Rate.	Water Rate.	Land Rate.	Water Rate.
(1)	(2)	(3)	(4)	(5)
	Rs. A.	Rs. A.	Rs. A.	Rs. A.
State land — With paddy ...	2 8	2 8	2 0	1 8
State land — With crops other than paddy.	...	...	1 4	0 12
Non-State land. — With paddy ...	...	...	...	1 8
Non-State land. — With crops other than paddy.	...	...	...	0 12

In Pyinmana Subdivision.		Land Rates.					
		Per *pè*.		Per yoke.		Per acre.	
		1886—90	From 1886-87.	1886—90	From 1889-90.	1890—92	From 1892-93.
(1)		(2)	(3)	(4)	(5)	(6)	(7)
		Rs. A.	Rs. A.	Rs. A.	Rs A.	Rs. A.	Rs. A.
State land	With paddy ...	4 0	...	...	...	5 0	3 0
	With crops other than paddy.	...	...	...	...	5 0	2 4
Non-State land.	North of Ngalaik *chaung*.	...	2 0	...	...	...	...
	South of Ngalaik *chaung*.	...	...	4 8	9 0	...	...

Original Settlement, 1898—1901.

The first survey of the Yamèthin District was made in 1895-96 and Settlement Operations were carried out by Mr. R. A. Gibson during the years 1898—1901. The new Settlement was introduced in 1903 and sanctioned for ten years. The Revision Settlement was duly carried out in Pyinmana Subdivision at the expiry of that period but in the Yamèthin Subdivision was postponed till 1925.

Mr. Gibson found conditions in the two subdivisions so different from each other as to make it necessary to treat them as two distinct divisions of the Settlement Area. Twenty-three assessment tracts were formed of which 14 were in Yamèthin and nine in Pyinmana.

The reasons for this tracting were :—

(i) The marked difference in rainfall.
(ii) Inequality in facility of transport and distances to market.
(iii) Marked divergence in density of population and size of holdings.
(iv) Important differences in facilities of irrigation.
(v) Large differences in the prices of local produce.
(vi) Large proportion of fallow to cropped area.
(vii) Conspicuous difference in the kinds of produce raised.

That this system of tracting was sound is proved by the fact that with a few very minor adjustments it was retained at the Revision Settlement of Yamèthin and at both Revision

Settlements in Pyinmana. In each of these tracts all occupied land was divided into four main kinds—irrigated rice land, unirrigated rice land, *ya* land devoted entirely to dry crops and garden land. Each of these main kinds was divided into soil classes with reference to certainty and fertility. In the Yamèthin Subdivision there was three soil classes in each main kind except gardens which were subdivided not by soil classes but according to their kind—betel vines, plantains, toddy palms, and pine apples and fruit trees. Special crops were sugar-cane, onions and chillies. In the Pyinmana Subdivision two soil classes in each main kind were found sufficient. Plantains, sugar-cane, betel vines and tobacco were treated as special crops for assessment purposes and separate rates were proposed for them and for *mayin*, *taungyas* and crops other than rice grown on rice land. Crop measurements were obtained and from them were deduced standards of productiveness per acre according to soil class and main kind for rice, sesamum and maize, jowar in Yamèthin, and *pègyi* or white beans in Pyinmana, and for special crops. The local prices of produce were recorded for four years and the average was assumed as the price for assessment purposes except in the case of sugar-cane for which the lowest price recorded was adopted. These prices per 100 nine-gallon baskets for each subdivision were :—

	Paddy.	Sesamum.	Jowar.	Maize.	*Pègyi.*
	Rs.	Rs.	Rs.	Rs.	Rs.
Yamèthin ...	62	235	47	53	...
Pyinmana ...	55	249	...	37	173

The rates proposed were half nett produce rates reduced by 50 per cent in four tracts and by 60 per cent in the others. Practically they worked out to one-quarter and one-fifth nett produce rates. Specially low rates were proposed for gardens and for land under special crops to encourage such cultivation and a reduced rate was recommended for rice grown on irrigated land which failed to receive irrigation.

Differentiation of rates on State and non-State land was proposed for all crops other than special crops grown on rice land but not for *ya* land, gardens, *taungyas* and special crops, where assimilation of rates was recommended.

Thathameda.—In place of the uniform rate of Rs. 10 per household reduced rates were recommended in the Yamèthin Subdivision of Rs. 6 in Pyawbwè Town, Rs. 5 in Yamèthin Town, Rs. 2 in Assessment Tract I and rates of Rs. 3 or Rs. 4 elsewhere. In the Pyinmana Subdivision a rate of Rs. 6 was proposed for Pyinmana Town and of Rs. 3 for the remainder of the settlement area.

The result of applying Mr. Gibson's proposals to the cropped area of 1899-1900 was to raise the total demand for land revenue plus *thathameda* in the Yamèthin Subdivision by 100 per cent. from Rs. 2,45,706 to Rs. 4,92,334 and in the Pyinmana Subdivision by 53 per cent. from Rs. 1,84,907 to Rs. 2,82,049. But that was an abnormally good year and the application of Mr. Gibson's proposals to the cropped area for 1900-01 showed percentage increases in each subdivision of only 70 and 34 respectively.

The rates recommended by the Settlement Officer evoked considerable discussion. The conference which met at Yamèthin in August 1902 proposed several changes. For the Yamèthin Subdivision it accepted the proposal to take one-quarter of the nett produce in three tracts and one-fifth in others on land irrigated from Government works but considered that a lower proportion should be taken in the case of privately-irrigated and unirrigated land and proposed one-fifth of the nett produce of privately-irrigated land and one-sixth of that of unirrigated land except in Tract VIII where one-sixth and one-seventh respectively were thought sufficient.

Similarly in Pyinmana it was proposed to reduce the fraction of nett produce taken on unirrigated lands from one-quarter to one-fifth and in the two remote tracts from one-fifth to one-sixth. The conference also disapproved of the proposal to have separate rates for rice grown on irrigated land according as it actually got irrigation or not. For dry crops grown on *ya* land they thought the rates proposed too high and suggested that the rate for second class *ya* should be applied without differentiation of tenure. For *ya* land they accepted the proposal to take one-fifth of the nett produce in Tracts XVIII and XXI and one-quarter in the other tracts of the Pyinmana Subdivision but reduced the proportion to be taken in the Yamèthin Subdivision from about one-fifth to one-sixth. The rates proposed for other crops were accepted except that for sugar cane the rate was changed from Rs. 7-8 in Yamèthin and Rs. 10 for Pyinmana to Rs. 8 for both subdivisions.

For *thathameda* the conference proposed Rs. 8 for Pyinmana Town, Rs. 6 for Yamèthin and Pyawbwè Towns and rates varying from Rs. 3 to Rs. 4 elsewhere in the Yamèthin Subdivision and from Rs. 3 to Rs. 5 in the Pyinmana Subdivision.

The Financial Commissioner proposed that the differentiation of rates for State and non-State land should be altogether abolished and recommended the application to all lands of rates which were the non-State rates approved by

the conference except for sugar cane for which he thought the Settlement Officer's rate of Rs. 10 was not excessive. As regards *thathameda* he thought it ought to be assessed at an amount which would fall for head of population at about the same incidence as capitation-tax in Lower Burma and proposed rates considerably higher than those suggested by the conference.

The Local Government retained the differentiation of State and non-State rates in the case of rice, special crops and gardens and approved proposed assimilation of rates on ordinary dry crops.

For the Yamèthin Subdivision the rates on Government-irrigated land were raised so that the land revenue, excluding water rate, represented one-sixth of the nett produce in three tracts and one-eighth in the remainder—combined land and water rates representing between one-third and one-fourth of the nett produce. The rates on privately-irrigated land were reduced to represent one-sixth only of the nett produce so as to encourage private works. The rates on other crops proposed by the conference were sanctioned as were all the rates proposed by the conference for Pyinmana except that a rate of Rs. 10 was fixed for sugar cane in that subdivision.

The *thathameda* rates recommended by the conference were also sanctioned.

The resulting revenue was estimated to be an increase of 60 per cent in the Yamèthin Subdivision and of 45 per cent in the Pyinmana Subdivision and of 54 per cent over the whole settlement area, the basis of calculation being the cropped area of 1899-1900 so that in normal years the increase was considerably less. The estimated financial result on this basis was :—

	Previous demand.	Demand at new rates.		
		Land Revenue.	*Thathameda.*	Total.
	Rs.	Rs.	Rs.	Rs.
Yamèthin Subdivision ...	2,85,716	3,69,928	87,229	4,57,157
Pyinmana Subdivision ...	1,84,907	2,06,460	61,671	2,68,131
Total ...	4,70,623	5,76,388	1,48,900	7,25,288

Revision Settlement Operations were carried out in the Pyinmana Subdivision during the seasons 1910 - 12 by Mr S. A. Smyth, I.C.S.* The grounds for revising the settlement were set out in a note by the Commissioner of Settlements and Land Records who considered that the enormous extension of cultivated area, the addition of a considerable area to be brought under settlement for the first time, the entire change in tne features of the old cultivation, the increase of some 25 per cent in the price of paddy, the growth of the rented area and the rise in rents were circumstances which demanded an entire re-assessment. It was originally intended that the Yamèthin Subdivision should be resettled at the same time but this project was abandoned as financially unjustifiable. For the most part the new settlement followed the lines of the original settlement, the most notable innovations being the inclusion in fixing the standard cost of cultivation of an allowance for so much of the labour of the cultivator and his family as could be estimated with accuracy, the basing of the standard price of rice on the average Rangoon price for twenty years with a liberal allowance for cost of transport and merchants' profits, a more scientific calculation of *thathameda* rates and the entire abolition of any differentiation between rates on State and non-State land. Second Settlement o Pyinmana Subdivision, 1910—12.

With a few small modifications the original tracting was followed and a new Tract 24 was formed consisting of 129 *kwins* lying in the upland region along the south bank of the Sinthe River. In this tract fixed assessments on village-tracts were recommended in place of the ordinary fluctuating assessments adopted in the rest of the settlement area.

Subject to variation in a few cases in deference to the outturns admitted by cultivators, the acre outturns assumed as standards for assessment followed closely the average of crop measurements where these were sufficiently numerous to fix the probable yield. On the whole compared with original settlement there was not much difference in the outturns assumed for irrigated rice land but on unirrigated land the assumptions were much higher than before and approximated in accordance with the result of crop reapings to the assumptions for irrigated land. The average price of paddy in Rangoon in the preceding 20 years was found, after making allowances for weight, etc., to be Rs. 98'63 per 100 nine-gallon measures. From this was deducted cost of carriage—including cart hire from the place of sale to the railway station, railway freight from there to Rangoon, cost of

* Now Sir S. A. Smyth, C.S.I.

bagging and loading, loss by dryage and otherwise *en route* — and merchants' profits. The result was an assumed price for assessment purposes of Rs. 72 in the five tracts along the railway line, Rs 70 in two others and Rs. 65, 64 and 60 in the three remoter tracts.

The same main kinds were adopted as before. Irrigated and unirrigated rice land were divided into three classes and *ya* land into two. Rice land was further classified into two classes according to its suitability for dry crops. The rates proposed on rice land represented approximately one-fourth of the nett produce except in Tract 16 where the fraction was one-fifth and on 1st and 2nd class irrigated land in Tracts 19 and 22 where it was as high as three-tenths.

On *ya* land and dry crops grown on paddy land the proportion taken was one-eighth of the nett produce which resulted in a considerable reduction of the previous rates. *Taungyas* ware classified with the mainkind *ya* and the separate rate was discontinued. A reduction of Re 1-0-0 on each class of garden was also recommended bringing the rates to Rs. 4-0-0 and Rs. 2-8-0. The crops for which special rates were recommended were *mayin* and plantains (Rs. 3-0-0), tobacco and onions (Rs. 5-0-0), and sugar cane and betel vines (Rs. 10-0-0). These rates were to be paid wherever these crops were grown and whether they were grown as single crops or before or after other crops. Otherwise double-cropped land was to pay only one assessment. No assessment was proposed for toddy palms or solitary fruit trees which were very few in number.

Finally it was proposed that the differentiation between rates on State and non-State land should be entirely abolished. The Settlement Officer justified this proposal in the following terms :—

"The proposal to abolish differentiation of rates by tenures requires justification in view of the fact that there has been differentiation since annexation. A historical summary of the policy which has been pursued in regard to differentiation in other districts of Upper Burma is given in paragraph 137 of the report on the second settlement of the Meiktila District and it is perhaps unnecessary to repeat it here. It is there shown that the introduction of differential rates and their subsequent levy for a long period of years does not of itself necessitate their continuance, and that the question to be considered is whether the people have a right to expect lower rates of assessment on non-State land.

"In places where before settlement revenue, or rather rent, was assessed on State land only and non-State land entirely escaped assessement, it might perhaps be held that the

owners of non-State land had good grounds for such an expectation. *Thathameda* had in these places been paid alike by cultivators both of State and non-State land and was assessed according to means regardless of the amount of rent paid for State land. Cultivators of non-State land were therefore paying less than cultivators of State land and might reasonably expect to continue to pay less after settlement. But in Pyinmana land revenue was from the very beginning paid both on State and on non-State land. Prior to annexation it was, at the desire of the people themselves, neither in theory nor in practice differentiated according to tenure in the part of the subdivision which, up to the Second Burmese War, was included in the jurisdiction of Toungoo and which occupies two-thirds of the settlement area. In the remainder of the area there may have been a theoretical differentiation, but all remembrance of it is now lost and it may be safely assumed that in practice it was non-existent. After annexation the revenue assessed on State land prior to settlement was never large. In 1899-1900 it was only one-tenth of the whole land revenue despite the fact that nearly a quarter of the occupied area in that year was classed as State land at first settlement. Differentiation of rates was, therefore, in practice largely ignored. This was to be anticipated from the general ignorance of the definition of State land laid down in the Upper Burma Land and Revenue Regulation of 1889. The Burmese Government had never regarded those who cleared and cultivated waste lands in Pyinmana as State tenants nor their *dama-u-gya* lands as State lands liable to pay a rent instead of a revenue. The occupants of *dama-u-gya* lands were on exactly the same footing as regards title and payment of revenue as the occupants of *bobabaing* lands inherited from ancestors. The distinction between lands cleared before and after the date of the Regulation was artificial and was evaded; and the only land in the subdivision regarded by the people as State land, in the sense to which they were accustomed, was whatever part of the 2,128 acres of confiscated land found at first settlement in the whole of the Yamèthin District may have been situated in Pyinmana.

"Broadly speaking, therefore, it may be said that differentiation of rates was not practised prior to annexation, was not effective between annexation and settlement and is not in accordance with the ideas of the people. There is thus a stronger case for assimilation than existed in the Meiktila District, where it has been approved. If it is sanctioned the burden of taxation will be distributed with greater fairness and an incentive to intrigue removed."

For Tract 24 instead of the ordinary fluctuating assessment a system of fixed lump sum assessments by village tracts was proposed because the tract was remote, the cultivated area sparse, the cultivation of dry crops shifting and the revenue rates which could be imposed low. The lump sum demand was to be levied in every year except those of exceptional failure and to be distributed by assessors chosen by the cultivators in each village-tract. Supplementary survey was not introduced.

The *thathameda* demand proposed was based on the assumption that if land revenue were not paid the *thathameda* rate would be Rs. 10. Fifty-one per cent of the total income of the settlement area was found to be non-agricultural.

The average rate which ought to be retained was therefore Rs. 5·10 and from this was deduced the rate for separate villages, though actually owing to reductions made in particular places for special reasons the average actually proposed was only Rs. 4·46.

The rates proposed as a result of these calculations were Rs. 15, 11, 8, 7 and 4 in the wards of Pyinmana Town; Rs. 7 in Lèwe, the railway towns of Ela and Thawatti, in two villages on the outskirts of Pyinmana, Kyaukkyin and Yaukthwa-in, and in Kyathaungdaung, then a centre of timber industry. Rupees 3 was taken as the general rate, as well as the minimum rate, for agricultural villages but rates of Rs. 4 and Rs. 5 were proposed where justified.

The financial results of these proposals was to give a total increase of revenue amounting to 30 per cent as follows :—

—	Inside Supplementary Survey.	Land Revenue, Tract 24.	*Thathameda.*	Total.
	Rs.	Rs.	Rs.	Rs.
Old Rates ...	2,64,153	2,172	98,167	3,64,492
New Rates ...	3,60,616	8,037	1,05,745	4,74,398

On the area within supplementary survey the new rates represented an incidence of Rs. 2·58, 3·21 and 3·27 per acre occupied, cultivated and assessed respectively while the *thathameda* rate represented a tax per head of Re. ·88 or annas fourteen. The conference which assembled at Meiktila supported the Settlement Officer's proposals in their entirety and they were sanctioned *en bloc* by the Local Government with two small modifications. A rate of one rupee per acre was fixed for crops other than special crops grown before or

after rice in the same year, chiefly in order to ensure that they were annually recorded and the fixed assessments in Tract 24 were sanctioned for ten years only.

Intermediate rates for five years involving a reduction of Rs. 23,000—nearly a quarter of the total enhancement proposed—were also sanctioned mainly for the benefit of non-State land in order to mitigate the effect of the assimilation of rates on State and non-State lands.

Second Settlement of the Yamèthin Subdivision, 1925—27.

A revision settlement of the Yamèthin Subdivision was undertaken by Mr. C. J. Richards, I.C.S., in the season 1925—27. The reasons justifying the revision are given in the Deputy Commissioner's Forecast as (1) the rise in price of staple crops, (2) the substitution of more certain crops such as *matpè* and *pèsinngon* in some of the precarious areas, (3) the extension of cultivation to its utmost limit, and (4) assimilation of rates on State and non-State land. This was one of the first settlements carried out under the new settlement instructions which were compiled in 1925 by Sir S. A. Smyth and followed the lines adopted by him in the Pyinmana Settlement.

With a few very minor modifications Mr. Gibson's tracting was retained. Over 2,200 reapings of paddy and over 600 reapings of other crops were carried out in the two years of settlement and in the main confirmed the outturns assumed at original settlement. The abnormal prices of the war years were disregarded and the price of paddy was calculated on the average price for the seven years from 1920-21 to 1926-27. The resultant average was found to be Rs. 179 and a price of Rs. 173 per 100 Government standards was assumed. After deducting cost of carriage and merchants' profits it was found that the corresponding price in Yamèthin was Rs. 125 and from this prices were deduced for the various tracts varying from Rs. 107 to Rs. 122. These prices were approximately double the price assumed at original settlement. Prices of other produce were based as far as possible on the somewhat meagre figures available for previous years and were generally also about double those assumed by Mr. Gibson.

Winter rice land was divided into four main kinds : (1) Government-irrigated land, (2) privately-irrigated land, (3) unirrigated land, and (4) land irrigated by surplus water from Government works or by works subsidiary to Government works. Other main kinds adopted were *mayin* land, *ya* land including *taungyas* and garden land which contained three subdivisions, toddy gardens, betel vine gardens, and gardens. These main kinds were divided into three assessment classes except gardens for which two classes were

sufficient and *mayin* for which division was found unnecessary.

On Government-irrigated lands the fraction of nett produce which it was proposed to take as revenue was one-fifth, except in Tract 7 where it was one-sixth ; on privately-irrigated land it was one-seventh ; on unirrigated land one-seventh in three tracts, one-eighth in five tracts and one-nineth in the remainder ; on surplus water lands one-sixth in two tracts and one-seventh in the other four tracts concerned. For *ya* land the general fraction taken was one-eighth, but higher in Tracts 5 and 7 and lower in Tracts 8 and 9, with a general rate of annas eight on 3rd class *ya*. Dry crops on paddy land were to pay the 2nd class *ya* rate. The rate on gardens was to be Rs. 2 and Rs. 1-8. Special rates were again proposed for sugar cane (Rs. 10), onions, tobacco and sweet potatoes (Rs. 6) and chillies (Rs. 3).

On betel vine gardens a special rate of 2½ annas per 120 poles equivalent to rather more than Rs. 16 per acre was proposed and for toddy palms a tree rate of one anna on all tapped palms. Finally, as in Pyinmana and elsewhere, the differentiation between State and non-State land was abolished. Except in the case of special crops it was not proposed to assess any land twice. A dry crop grown before or after rice was to be exempt if the rice crop was assessed. If the rice crops were unassessed the dry crop would pay the tract rate.

Fixed assessments were proposed, instead of the ordinary fluctuating assessments, in 185 *kwins* on account of (1) smallness of revenue in proportion to area, (2) inaccessibility, (3) proximity to *kwins* already under fixed assessments, and (4) steadiness of revenue. *Thathameda* enquiries showed an average annual non-agricultural income for the whole settlement area of Rs. 142. The incidence of the rates proposed was Rs. 3·54 per household, a decrease of Rs. ·10. These figures may be compared with those for other districts :—

		Non-agricultural income.	Incidence of *thathameda*.
		Rs.	Rs
Meiktila	(1907—10)	155	4·24
Myingyan	(1909—15)	149	3·20
Pyinmana	(1910—12)	195	4·46
Magwe	(1915—19)	155	3·64

In Pyawbwè Town rates of Rs. 10, Rs. 8 and Rs. 6 and in Yamèthin Town of Rs. 8 and Rs. 6, and elsewhere a general rate of Rs. 3 with a rate of Rs. 4 or Rs. 5 in special villages were proposed.

The financial results of these proposals over the settlement area was an increase of 37·8 per cent in the land revenue, a decrease of 1·8 per cent in the *thathameda* or an increase under both heads of 25·3 per cent with an incidence of Rs. 1·41, Rs. 2·16 and Rs. 2·47 per acre occupied, cultivated and assessed and of Rs. 3·15 per estimated head of population.

The actual figures are :—

	Land Revenue.	*Thathameda.*	Total.
	Rs.	Rs.	Rs.
Old demand ..	2,91,974	1,37,827	4,30,152
New demand...	4,02,392	1,35,312	5,38,834

The Settlement Officer's proposals were in the main accepted by the conference and the Financial Commissioner and sanctioned by the Local Government. In a few cases the proposed rates were increased or decreased by four or eight annas and the rate on onions was reduced from Rs. 6 to Rs. 5 and that on chillies raised from Rs. 3 to Rs. 4. The Financial Commissioner considered that the old rate of *thathameda* should be retained in Pyawbwè and Yamèthin Townson the ground that towns should be left for local fund taxaction. The Governor-in-Council, though unable to accept the existence of local fund taxation as a sufficient reason against an increase of *thathameda* for which there is adequate justification, considered that the rates proposed for these towns involved incidences which were somewhat high in comparison with other towns in the dry zone and therefore reduced the rates proposed for certain wards by one rupee a household while accepting the rates proposed for the rest of the settlement area.

The nett result, therefore, was an enhancement of the revenue of the cadastrally-surveyed area of 25 per cent made up of an increase of 39 per cent in the land revenue and a decrease of 4 per cent in *thathameda*.

Fixed Assessments.

Throughout the greater part of the district the ordinary system of fluctuating assessments is in force. But it has already been mentioned that at the Revision Settlement of the Pyinmana Subdivision a system of fixed (lump sum) assessments by village-tracts was introduced into Tract 24. This system was extended to 196 remote *kwins* of the Yamèthin Subdivision in 1915 and in 1919 to the 30 village-tracts of the Pyinmana Subdivision which still remained subject to the old *kywèshin, pègun* and *ayadaw* taxes. At the revision settlement of the Yamèthin Subdivision 185

more *kwins* were brought under this form of assessment and the opportunity was also taken to revise assessments on the 196 *kwins* mentioned above and to bring under the system certain areas lying in the east of the subdivision which had not been previously dealt with.

Third Settlement of Pyinmana Subdivision, 1930—32.

A second revision settlement was begun in the Pyinmana Subdivision in November 1930 and was still in progress when this chapter was written. The original tracting was again adopted and the settlement followed very similar lines to the first revision settlement. Supplementary survey was however extended to about half of Tract 24 and to eight of the village-tracts put under fixed assessments in 1919.

Fisheries.

Fishery revenue is unimportant. In the Pyinmana Subdivision fisheries are administered by the Deputy Commissioner but in the Yamèthin Subdivision they are situated in the irrigation tanks and are administered by the Irrigation Department.

The revenue obtained during the last three years has been :—

Township.	No.	1928-29	No.	1929-30	No.	1930-31
		Rs.		Rs.		Rs.
District Fisheries—						
Pyinmana ...	17	4,798	17	4,700	17	4,198
Lèwe ...	6	863	5	1,006	5	512
Irrigation Fisheries—						
Yamèthin ...	2	2,930	2	2,065	2	2,365
Pyawbwè ...	3	1,806	3	1,631	2	450
Yanaung ...	1	345	1	335	1	375
Total ...	29	10,742	28	9,737	27	7,900

Miscellaneous Revenue.

Average revenue from miscellaneous sources for the ten years from 1920-21 to 1930-31 is given below :—

		Rs.
Town Land Rents ...	...	10,549
Royalty on minerals	...	569
Others ...	...	813

Stamps

The steady expansion of cultivation and trade during the present century is reflected in the figures for stamp receipts

given below which also reveal the effect of the war and the present depression :—

Stamp Receipts.

Year.	Judicial.	Non-Judicial.	Others.
	Rs.	Rs.	Rs.
1900-01 ...	30,383	17,957	761
1905-06 ...	56,939	18,397	690
1910-11 ...	58,273	20,557	908
1915-16 ...	51,009	21,487	438
1920-21 ...	48,121	37,984	216
1925-26 ...	97,444	50,155	1,248
1930-31 ...	82,308	35,024	589

The work of the Excise Department has been described in Chapter IX. Revenue from opium and liquor during the last decade has been— Excise.

	1920.	1925.	1930.
	Rs.	Rs.	Rs.
Opium ...	35,929	54,083	33,573
Tari ...	43,740	47,915	67,880
Foreign liquor	7,660	7,900	12,275
Total ...	87,329	1,09,898	1,20,728

Administration.

The collection of revenue is dealt with in the Revenue Department of the Deputy Commissioner s Office which is supervised by the *Akunwun.* The assessment of revenue with the work ancillary thereto such as the upkeep of survey and the maintenance of a record of rights is dealt with by the Land Records staff, supervised by a Superintendent of Land Records under the control of the Deputy Commissioner.

Land Records.

Besides the Superintendent, the Land Records staff consists of one Assistant Superintendent, six Inspectors, 59 Surveyors, three Reservists, seven Apprentices, two Office Clerks and a Record-keeper. The occupied area dealt with in 1930-31 was 567,189 acres of which 406,241 acres were cultivated and 341,282 acres assessed. In the three towns of Yamèthin, Pyinmana and Pyawbwè 1,240 acres were shown as occupied for residential purposes. The cost of the Land Records establishment in 1930-31 averaged annas two per acre occupied and amounted to 10·05 per cent of the total assessment.

CHAPTER XI.

Local Government.

Yamèthin Municipality.

The first constitution of Yamèthin as a municipality was notified on the 31st May 1888 under the Upper Burma Municipal Regulation 1887. The municipal boundaries were demarcated by a series of numbered pillars.

The Committee was the composed of ten members of whom four were Europeans. Five members held their seats *ex-officio—viz.* the Deputy Commissioner, Subdivisional Officer, Civil Surgeon, Township Officer and Public Works Department Subdivisional Officer. The other five members were nominated. The Deputy Commissioner was President and as a rule carried on must of the administration himself with the help of the Civil Surgeon who was Vice-President.

The Committee became entirely elective in 1921 but the Civil Surgeon and Subdivisional Officer, Public Works Department, are always co-opted as members to give expert advice. Seats on the Committee were allotted as follows :—

Burmese Community	...	6 seats.
Mohamedan Community	...	2 seats.
Hindu Community	...	1 seat.
Railway Community	...	1 seat.
Co-opted members	...	2 seats.

In 1932 the number of Mohamedan seats was increased to three, allowing two seats for the Burma Moslems and the other for Indian Mussalmans.

The Committee elects its own President and Vice-President. The President is the executive authority in all departments. He supervises the affairs of the municipality generally, conducts the correspondence, inquires into complaints against any of the officers or servants of the municipality and does everything necessary for the carrying on of the current work of the municipality subject to provisions of the Act. He can appoint, suspend and grant leave to all employees whose pay is less than Rs. 50 per mensem. He can sanction expenditure in urgent special cases up to Rs. 500, if budget provision exists, and can act for the Committee in respect of certain sections of the Municipal Act. He can also delegate his powers to the Vice-President by special or general order. There is also a permanent Secretary.

The population of the municipal area has increased only from 8,680 in 1901 to 8,925 in 1931.

The income and expenditure of the municipality in 1921-22 and 1930-31 was—

		Income.	Expenditure.
		Rs.	Rs.
1921-22	...	61,968	63,120
1930-31	...	56,469	58,133

The incidence of taxation per head of population was Rs. 2-6-11 in 1921-22 and Rs. 2-13-3 in 1930-31. The chief taxes are : (*a*) tax on houses and lands at the rate of 2 pies, 1½ pies and 1 pie per square foot for masonry, timber and bamboo houses, respectively ; (*b*) lighting-tax at the rate of 40 per cent of the house-tax ; (*c*) Conservancy-tax at different rates in the different quarters of the town, and (*d*) a tax on vehicles according to their character and use. Besides these taxes income is derived from bazaar rents, pawnshops, slaughter houses and cattle-pounds.

The chief heads of expenditure are general administration, lighting, conservancy, hospital and education.

There is no water supply, the roads are in a very bad condition and considerable improvement in the administration is required.

Pyinmana Municipality.

The first constitution of Pyinmana as a municipality was notified on the 2nd April 1888 under the Upper Burma Municipal Regulation, 1887. Under the original constitution there were four official and six nominated members. When the Pyinmana District was abolished in 1893 a seventh nominated member was added and the Subdivisonal Officer took the place of the Deputy Commissioner as President. The Committee was re-consitituted in the 1st July 1902 under the Burma Municipal Act, 1898, with three official and nine nominated members. On the 1st August 1921 the Committee became purely elective with thirteen members. Provision was also made for three co-opted members who are the Subdivisional Officer, the Assistant Surgeon and the Subdivisional Officer, Public Works Department.

The town is divided into four wards for election purposes—Mingala and Shwegyi Wards returning three members each, Yanaung and Ywagauk Wards returning two members each. In addition to these the Mahomedan community returns two members and the Hindu community one member.

The President and Vice-President are elected by the Committee and have similar powers to those described above. There is also a permanent Secretary who keeps the administration in working order.

Income and expenditure in 1889-90 and 1930-31—

	Income.	Expenditure.
	Rs.	Rs.
1889-90 ...	20,365	60,58[illegible]
1930-31 ...	1,59,529	1,63,412

The main heads of income and expenditure in 1930-31 were.—

Income.

	Rs.	A.	P.
1. Rates and Taxes	49,369	14	0
2. Realisation under Special Acts ...	1,498	4	0
3. From Municipal Properties and Powers.	68,990	4	0
4. Grants and Contributions ...	11,900	0	0
5. Miscellaneous	1,344	6	0
6. Deposits	26,426	12	0

Expenditure.

	Rs.	A.	P.
1. General Administration	16,574	11	0
2. Public Safety	12,910	10	0
3. Public Health and Convenince ...	82,559	2	0
4. Public Instruction	29,704	10	0
5. Contributions	8,041	6	0
6. Miscellaneous	379	6	0
7. Deposits	13,242	4	0

The incidence of taxation per head of population in 1930-31 was Rs. 2-12-9. The chief taxes are: (*a*) tax on houses and lands; (*b*) lighting-tax; (*c*) conservancy-tax; (*d*) tax on vehicles, and (*e*) tolls. Other sources of income are bazaar rents, slaugher-houses, pawnshops and cattle-pounds.

A proposal has been put forward for obtaining a proper water supply by means of an infiltration gallery in the bed of the Ngalaik *Chaung* but it is not likely to be financially feasible for some years.

Within the municipality there over 15 miles of metalled roads and nearly 7½ miles of unmetalled roads. Most of them are in good order or very fair condition. On the whole the administration of the municipality is reasonably efficient.

yawbwè own ommit- e.

Pyawbwè Town was constituted a notified area from the 1st April 1910. The Town Committee consists of 11 elected and three co-opted members. The Township Officer who is one of the co-opted members is *ex-officio* President.

The Myoma and Myinbet Quarters elect two members each, Mandalaydan, Shanbwè and Myethi elect one member each and in addition there are two representatives for the Mahomedan community and one each for the Hindus and Chinese.

The income for the year 1931-32 was Rs. 77,136 and the expenditure Rs. 71,994. The main sources of income are: (*a*) tax on houses and lands at 25 per cent of the amount of *thathameda*-tax assessed on the household; (*b*) scavenging-tax; (*c*) tolls at annas 2 per cart per diem; (*d*) markets and slaughter-houses, and (*e*) pawnshops. The main heads of expenditure are street lighting, conservancy, bazaars, roads and culverts, drainage and education.

Road and drainage are supervised by a Sanitary Inspector.

The District Council was first constituted in 1922 under the Rural Self-Government Act (Act of 1921). There are nine Circle Boards in the district and each Circle Board elects two or three representatives on the District Council. The number of elected members on the District Council is 21. The last Circle Board elections were held in November 1931, and the District Council elections in December 1931. Distric[t] Counc[il]

The area administered by the District Council measures 838·40 square miles and the population at the last Census was 264,943. Roughly half of the district, the more populated areas on both sides of the main railway line, is under the control of the District Council, while the other half, the sparsely-populated areas consisting of 150 village-tracts, is administered by the Deputy Commissioner who has a Local Fund of his own.

The Chairman and Vice-Chairman are elected by the members and have similar powers to Presidents and Vice-Presidents of municipalities. The office is managed by a Secretary who is a graduate, responsible for explaining the rules and regulations to the Chairman and members and seeing that the regular routine of administration is carried out. He has three clerks to assist him.

During the financial year 1930-31 the total income of the Council was Rs. 2,31,913 and the total expenditure Rs. 2,05,333. The main heads of receipt were: (*a*) contributions from Government Rs. 1,60,656; (*b*) bazaars Rs. 27,347, and (*c*) slaughter-houses and ferries Rs. 19,784. No taxation has yet been imposed by the District Council under sections 26 or 27 of the Rural Self-Government Act and this no doubt is responsible for the stagnation of the District Fund. The District Council members doubtless desire to avoid public odium, but they seem to overlook the fact that for the

improvement of the rural areas money is needed and that the only way of raising the money required is by the imposition of taxes under section 26 or section 27 of the Rural Self-Government Act.

On the "Expenditure" side the main items are :(*a*) General Administration Rs. 20,520 ; (*b*) Public Health Rs. 17,078 ; (*c*) Medical (contribution to hospitals) Rs. 16,791 ; (*d*) Public Works (communications) Rs. 44,926, and (*e*) Public Instruction) Rs. 89,205.

Public Health, Vaccination, Veterinary Service and Public Works have been treated in the relevant chapters. The Civil Surgeon is *ex-officio* Public Health Officer but immediate charge of sanitation, etc., is in the hands of the Public Health Inspector. A small conservancy staff is kept at Yanaung, Tatkôn, Lèwe, Ela, Kyidaunggan and Thawatti.

The hospital at Lèwe is entirely run by the District Council. The approximate amount spent annually by the Council on this hospital is Rs. 4,000. There are three hospitals which receive regular contributions from the District Council under the Hospital Finance Scheme, Yamèthin Hospital Rs 3,684 a year, Pyawbwè Hospital Rs. 2,000 a year and Pyinmana Hospital Rs 6,981 a year. There are two District Council members on the Lèwe Hospital Committees. The institution at Lèwe used to be merely a dispensary till the last year. During 1931 an indoor block (with six beds) was erected at a cost of Rs. 3,922.

[C]ircle [B]oards. Within the District Council Area are 208 village-tracts which have been formed into 40 village groups under section 4 of the Rural Self-Government Act. These groups are formed into nine circles containing from three to seven groups, each group electing one member to the Circle Board. Pyawbwè and Yanaung Townships form one circle each, Yamèthin Township is divided into two circles—Yamèthin and Baw Ywathit, Lèwe Township, into two circles—Lèwe and Ela, and Pyinmana Township into three circles—Kyidaunggan, Kyaukchet and Pyangapye.

The main function of these Circle Boards at present is to elect their representatives on the District Council. No separate Circle Board Funds have yet been created nor any specific duty delegated to them under the Rural Self-Government Act, except looking after slaughter-houses, cattle-pounds and bazaars. In actual practice however the interest taken by them in these matters is negligible.

Public Works are carried out by the Council's Overseer. An illuminating paragraph in the latest report states—

"As the previous Council could not pay for many works done under their orders, much of the money at the disposal

of the Council for the year under report was spent in settling arrears. Thus little money was left for the upkeep of roads, bridges, etc., though a qualified overseer was employed throughout the year."

The total number of bazaars managed by the District Council is 26 and the total number of slaughter-houses 28. The total number of cattle-pounds is 141 and that of ferries five. The leases of bazaars, slaughter-houses and ferries are sold either by public auction or by the tender system—the latter method being more popular with the District Council members. Experience has shown that it is not always the highest tender that is accepted.

Street lighting with oil lamps was formerly supplied by the Council at Lewe but has been discontinued for lack of funds. Street lighting is required at Lewe, Kyidaunggan, Tatkôn and Yanaung. These important and wealthy towns could easily afford a small tax but the Council members are averse to any form of direct taxation.

District School Board.

The School Board Fund is administered by a Board consisting of 12 members of the District Council. It is almost independent of the District Council. Vernacular education in the district is in the charge of the School Board and officers of the Education Department act as Advisers to the School Board. The School Board is not bound to accept the advice tendered by the Education Department officials. There were 84 schools (3 high, 22 middle, and 59 primary) recognized by the School Board during the year 1930-31. The number of Vernacular teachers paid by the School Board was 196. There are no Board Schools in the district. The Board employs one English teacher at Ela to teach the rudiments of English to the students of the recognized Vernacular schools at that place. The contribution paid by the District Council to the School Board during the year 1930-31 is Rs. 89,205 and during the current financial year (1931-32) is Rs. 91,000. The Board has an office of its own and the Secretary to the District Council is the *ex-officio* Secretary to the School Board. The office staff consists of one secretary, one head clerk, one second clerk and a peon. About Rs. 5,000 is spent every year in paying the office establishment, the travelling allowance to the School Board members and contingencies.

Special Officer.

The affairs of the District Council and the School Board had reached such a state of disorder as a result of several years' mismanagement that in July 1931 the Local Government appointed a special officer to act as adviser to both bodies. One of his chief duties was to straighten out the accounts of the School Board which were in a hopeless

muddle. The special officer was withdrawn at the end of February 1932. Comments on the bad work of the Council are constantly heard throughout the district.

Deputy Commissioner's Local Fund.

For the area outside the District Council constituency the Deputy Commissioner is provided with a small fund out of which he maintains roads, schools, markets, etc., and contributes towards public health and veterinary work.

The total income of the fund in 1930-31 was Rs. 39,293 of which Rs. 32,791 was contributed from Provincial Revenues, Rs. 3,498 was raised by tolls and fees, Rs. 28,117 was received in the discharge of functions under section 331(*d*) and Rs. 186 from miscellaneous sources.

Expenditure in the same year amounted to Rs. 39,477 of which the chief items were : public instruction Rs. 22,133, public works Rs. 13,167, public health Rs. 1,124, markets Rs. 866, cattle-pounds 377 and veterinary Rs. 300.

Forty-four schools are maintained out of the fund in the remoter villages—13 in Yanaung Township, 12 each in Pyinmana and Lèwe Townships, six in Yamèthin Township and one in Pyawbwè Township. They include two Middle Schools at Lethegyo in Pyawbwè Township and Konbawzu in Lèwe Township. All are Vernacular Schools.

The roads and ferry maintained from the Fund have been detailed in Chapter VII and the bazaars in Chapter VI.

CHAPTER XII.

EDUCATION.

Introductory.

During the times of the Burmese Kings the monastic system was the only system of education. There were no lay schools and the education of the girls was neglected.

The operations of the Education Department were extended to Upper Burma from the 1st April 1899. Within a few years of this, an educational sub-circle was started at Yamèthin with a Deputy Inspector in charge of Vernacular Schools.

At the present time there are two sub-circles, with a Deputy Inspector in charge of each, resident, respectively, at Yamèthin and Pyinmana. There are Sub-Inspectors of Schools at Pyawbwè and Lèwe.

The Yamèthin District was first included in the Eastern Education Circle, afterwards in the Northern Circle. It now belongs to the Mandalay Circle, under the Mandalay Inspector.

Prior to the creation of Divisional School Boards in 1917 the control of the vernacular education rested with the Education Department. On the creation of Divisional School Boards, it was transferred to the Meiktila Division. In 1923 these Divisional School Boards ceased to exist with the enforcement of the Burma Rural Self-Government Act, 1921.

Since then the control of Vernacular Education has rested with the following :—

(1) The District School Board (for the included area).

(2) The Deputy Commissioner (for the excluded area).

(3) The Municipal School Board, Yamèthin (for Yamèthin Town).

(4) The Municipal School Board, Pyinmana (for Pyinmana Town).

(5) The Town Fund School Board, Pyawbwè (for Pyawbwè Town).

Anglo-Vernacular and English Education is controlled by the Education Department only.

Vernacular Schools.

The number of schools increased from 149 in 1911-12 to 280 in 1916-17. It dropped to 240 in 1921-22 and to 108 only in 1926-27. The decrease in number was due mainly to the closing down of inefficient schools in pursuance of the policy advocated by Government. Since then owing mainly to the opening of new schools with the help of Provincial Funds, especially in the Deputy Commissioner's Local Fund area, the number of schools again increased, and at the end of March 1931 there were 149 schools with an enrolment of 12,668 pupils.

Vernacular Secondar Schools.

The number of Vernacular Secondary Schools increased from 14 in 1911-12 to 42 in 1926-27. In 1930-31 the number remained unchanged, the attendance however continued to increase, the numbers being 717, 4,080 and 5,132 respectively. The number of passes in the Seventh Standard Examination was nine only in 1911-12. It increased to 51 in 1926-27 but decreased again to 19 in 1930-31 owing to bad work of the schools when the control exercised by the Yamèthin District School Board was unsatisfactory.

Of the 41 Secondary Schools three schools with 690 pupils were high schools, and the rest with 4,442 pupils were middle schools.

The teaching of English as an optional subject in certain Secondary Schools was introduced in 1922-23, the salaries of English teachers being paid out of Provincial Funds. In

1926-27 there were two such teachers attached to the Town Fund School at Pyawbwè and U Po Shein's School at Yamèthin. By 1930-31 owing to financial stringency there was only one English teacher paid from Provincial Funds at the Town Fund School, Pyawbwè. In the Mohamedan School at Pyawbwè, another English teacher was attached to the school, but his salary was paid from the local fund.

Board Schools.

There are only two Board Schools in this district, namely, the Town Fund School at Pyawbwè and the Municipal Vernacular School at Pyinmana. Both schools were Government institutions before the Reforms were introduced, but they were transferred to the control of the Local Education Authorities and converted into Board Schools. They are well housed and have shown good work.

Vernacular Primary Schools.

For the reasons already given, the number of Vernacular Primary Schools decreased from 135 in 1911-12 to 66 in 1926-27 and rose again to 107 in 1930-31. The attendance however showed a steady rise, the figures being 3,423, 3,776 and 7,455 respectively. Between 1927 and 1931 the attendance had nearly doubled and this shows that the people have taken keener interest in education. The need for keeping children in school longer until they have passed Standard IV is still felt. As it is about 80 per cent of the children leave school, after passing Standard II only, which is unsatisfactory.

Vernacular Girls' Schools.

In 1930-31 there were 18 schools with 1,170 pupils in attendance. As co-education is tolerated by Burmans, separate schools for girls are not often found. More women teachers are now employed in schools, and the presence of women teachers increases the holding power of girls in the village schools.

Mohamedan Education.

The Mohamedans consist largely of Zerbadis, who are practically Burmans except for religion. Many Zerbadi schools are enrolled under the Burman Deputy Inspectors and take Burmese as the medium of instruction. Mohamedan schools, taking Urdu as the medium of instruction, numbered eight in 1911-12 with 343 pupils. In 1930-31 they numbered five with 478 pupils. Many Zerbadis prefer to send their children to the Burmese schools where Burmese is the medum of instruction than to the Mohamedan schools where the medium of instruction is Urdu.

Training Classes.

A few years ago the need of training schools was much felt in the district. In 1926-27 there were three elementary training classes, two for men at Pyinmana and Pyawbwè and one for women at Pyinmana. They were opened to supply the need for qualified teachers in village schools. Since the close of the year 1931-32 all these classes have been

abolished owing to financial stringency and also to the fact that there were already many qualified teachers who were out of employment.

English School. There is only one English school in the district, namely, the Railway English Girls' School. It was founded in 1890 for the education of the children of railway employees. The school is a small one, graded up to Standard IV. Attendance is 45.

Anglo-Vernacular Schools. There are now six Anglo-Vernacular schools in the district as follows :—

(1) A.B.M. High School at Pyinmana.

(2) King Edward Memorial Buddhist High School at Pyinmana.

(3) National High School at Pyinmana.

(4) W.M.M. Middle School at Pyawbwè.

(5) National High School at Pyawbwè.

(6) Government Anglo-Vernacular High Schooi at Yamèthin.

The A.B.M. High Schoool at Pyinmana was founded in 1890 as a primary school with 53 pupils. It was raised to the middle grade in 1892 and to the high grade in 1916. In 1926-27 it had an attendance of 316, of whom 53 were girls. In 1930-31 the attendance was 377.

The King Edward Memorial Buddhist High School was established in 1913 on the initiative of the late U Kyin Yon, K.S.M., Extra Assistant Commissioner. It was started as a primary school with 25 pupils, became a middle school with 140 pupils in 1915, and was raised to high school the next year with 256 pupils. The present attendance is 387.

The Government High School at Yamèthin has had a varied career. On the 1st of January 1907 Government took over the school, then managed by Roman Catholics. It was than a middle school and remained so till 1916, when it was raised to a high school. In 1920 it became a middle school and from the 1st June 1927 was raised again to the status of a high school. The attendance in this school increased every year since 1921, so much so that the present building is now insufficient to accommodate the 357 pupils now in attendance. Steps have been taken to enlarge the building.

The two national high schools at Pyinmana and Pyawbwè were recognised by Government in 1923-24. The attendances at present are 175 and 188. The latter is one of the best among the national schools of the province.

The W.M.M. Middle School at Pyawbwè has a present enrolment of 162 pupils.

CHAPTER XIII.

PUBLIC HEALTH.

General Health. Generally speaking Yamèthin District may be considered to be comparatively healthy, particularly the Upper Dry Zone. The Lower Wet Zone is malarious, especially Kyidaunggan and Nyaunggaing Circles. Of the three towns in the district, namely, Yamèthin, Pyinmana and Pyawbwè, Yamèthin which is the headquarters, is the healthiest. This is due to proper natural drainage and absence of congestion, whereas Pyinmana and Pyawbwè are insanitary and consequently unhealthy. Pyawbwè, although situated in an ideal position, is the most unhealthy of the towns, no doubt because of its large cattle market and extreme congestion. Pyinmana Town is thickly populated and has no proper drainage and is subject to all sorts of epidemics.

Vital Statistics. The registration of vital statistics in the district is performed by village headmen and in the towns, except Pyawbwè, it is done by the same agency, with the difference that the headmen in the towns receive a remuneration of four annas for each registration which the headmen of the district do not. In Pyawbwè Town, this duty is performed by the Public Health Inspector. It is desirable that these agencies should evince a little more interest in this branch of their duties.

Average births and deaths per mille for the last five years :

	Births.	Deaths.
Yamèthin Town	32·27	28·70
Pyinmana Town	35·67	44·87
Pyawbwè Town	37·37	49·23
Yamèthin District	31·30	21·60

From these figures it is apparent that the towns, especially Pyinmana and Pyawbwè, are more unhealthy than the rural villages. Yamèthin is the only one of the three towns in which there is an excess of births over deaths. The higher birth-rate in Pyawbwè is more than balanced by a shocking rate of infant mortality.

Infant Mortality. The mean during the past five years is as follows :—

	Ratio per mille.
Rural areas	232·85
Yamèthin Town	313·57
Pyinmana Town	310·37
Pyawbwè Town	397·41

The rural areas record the lowest number of deaths amongst infants under one year and Pyawbwè Town has an unenviable reputation of heading the list in infantile mortality

figures. The main causes of deaths amongst infants which are usually registered as "Thungèna" may be attributed to diseases of respiratory system and the digestive system. Malnutrition plays an important part in these. Venereal diseases amongst parents also play not an unimportant part in the deaths amongst infants.

Infant Welfar[e] Society.

In Yamèthin Town there exists an Infant Welfare Society which itself has only just passed its infancy and is struggling for life. In no other place in the district is there a body to look after the well being of the infants.

Result System Midwiv[es].

In the towns the local bodies have employed result system midwives under their control to attend to women in labour free of charge, Yamèthin Municipality has one, Pyinmana Municipality has two and Pyawbwè Town has one. These midwives on an average attend to about a third of the total number of births in their respective areas. The people are beginning to realise the benefits of the system.

In the rural areas there is no provision for trained midwives and the people have to resort to the old fashioned midwives.

Water-supply.

Throughout the district including the towns the sources of water-supply are wells, streams or tanks. The proposed schemes for the supply of water to the towns of Yamèthin, Pyinmana and Pyawbwè would appear either to have failed or to be postponed for want of funds.

Yamèthin Town has a few good wells but the Kanthit Tank is the main source on which a large portion of the public depend. In Pyinmana Town some of the wells situated on the Kyauktaung on the west of the town yield good water but the rest are brackish. Pyawbwè Town has not a single well that yields good water and the people have to depend for their drinking water on a couple of wells outside the town limits.

All the wells in the district are shallow and often unprotected.

Conser[-]vancy.

All the three towns have their own day and night conservancy staffs who work under qualified Public Health Inspectors and are employed by the local bodies.

The rubbish is collected and removed to waste lands bordering the towns or utilised in reclaiming low-lying lands. This is chiefly effected either by bullock carts or by motor traffic. The system works fairly satisfactorily.

Night conservancy is worked in the same way either by bullock carts or by motor traffic in the towns. The single bucket system is in force in the towns and is removed and trenched on lands reserved for the purpose just outside the towns.

For the rural areas there is a small staff to deal with the large villages mostly along the railway lines working under a qualified Public Health Inspector employed by the district council. The staff would appear to be insufficient. The sanitary condition of bazaars and slaughter-houses in most instances is entrusted to the lessees. This system cannot be said to be satisfactory. The general control of the sanitary affairs in the district is vested in the hands of the Civil Surgeon who is *ex-officio* District Health Officer but as he has not been delegated with full powers as contemplated by Government the sphere of his action is limited.

Expenditure.

Expenditure for the year 1930-31.

	Rs.	A.	P.
Yamèthin Town	29,768	0	0
Pyinmana Town	82,559	2	0
Pyawbwè Town	23,286	2	0
District Council	15,811	13	0
Deputy Commissioner's Local Funds	1,919	8	3
Total	1,53,416	9	3

Drainage.

The drains are mostly "kutcha" except for a few "pucca" ones in Pyawbwè. As already stated the drainage system of Pyinmana is very bad. In this town the drains near the bazaar have practically no outlet and are very foul and offensive. Like its water scheme this problem is also awaiting solution. The "kutcha" drains of the towns are periodically cleared of vegetation by a special staff.

Vaccination Staff.

In Yamèthin and Pyinmana Towns vaccination is performed by whole-time vaccinators employed by the municipalities whereas in Pyawbwè Town it is performed by the Public Health Inspector in addition to his other sanitary duties.

For the rural areas there are five vaccinators, one for each township and these work under an Inspector of Vaccination and are employed by the district council.

The Vaccination Act is in force only in the three towns and it has not been introduced into rural areas. The people in normal times generally do not view vaccination with favour and are apathetic, but during the prevalence of an epidemic of small-pox they are amenable and yield to vaccination easily which indicates that they really do appreciate the benefits offered.

Prevailing Diseases.

"Fevers" account for about a third of the total number of deaths and most of these cases registered under "Fevers" may be classed as "Malaria."

That part of the district from the east of Yamèthin Town to the hills bordering the Shan States and southwards along the foothills to the borders of the district fulfils all the conditions necessary for the flourishing of malaria.

Leprosy is rather prevalent in certain parts of the district. Tuberculosis and venereal diseases, judging from the hospital figures, are far from uncommon.

Epidemics.

Plague.—This regularly occurs in Pyinmana Town every year though not always in a severe epidemic form. In Yamèthin and Pyawbwè Towns it is not so regular. In the rural areas it has occurred regularly every year during the past five years though scattered and mild in nature.

Cholera.—In 1928 there was an epidemic which caused 268 deaths in the rural areas. In other years it has not occurred in a severe epidemic form.

Small-pox.—The only epidemics of recent years have been round Tatkôn in 1928-29 when the disease appeared in severe form and in Pyinmana in 1932 when it assumed a milder form.

The district may be said to be fairly well protected against small-pox, particularly after the vaccination campaign of 1919-20.

The following table shows the mortality from epidemic diseases and fevers during the past five years :—

	Years.				
	1927.	1928.	1929.	1930.	1931.
Yamèthin Town.					
Small-pox ...	4	5	1	...	...
Cholera	...	...	...	1	...
Plague	26	17	10	...	...
Fevers	41	39	76	58	36
Pyinmana Town.					
Small-pox	...	3	...	...	...
Cholera	1	31	1		...
Plague	41	31	27	19	15
Fevers	105	114	94	90	65
Pyawbwè Town.					
Small-pox	...	59	7	...	...
Cholera	...	...	...	1	...
Plague	29	24	16	...	...
Fevers	55	50	32	37	16
Yamèthin District.					
Small-pox	20	87	75	...	...
Cholera	52	268	21	1	...
Plague	73	69	15	6	22
Fevers	2,152	2,028	2,420	2,806	2,818

Medical. There are hospitals established in the towns as well as one in Lewe in the rural area. The hospital in Pyinmana Town is the oldest and a new building is badly needed. The Yamèthin Hospital was the next to be established and is now a brick building. Pyawbwè and Lèwe were the last to be provided. In fact Lewe had only a dispensary, until last year (1931) when a ward for accommodation of in-patients was added on to it.

In Pyinmana Town the hospital is situated a little away from the heart of the town and for the convenience of the general public, there is a dispensary right in the middle of the bazaar.

All the hospitals in the district are doing good work.

All the hospitals, with the exception of the one at Lewe, which is solely maintained by the District Council, come under the Hospital Finance Scheme.

The total expenditure on hospitals during the year 1921-32 was Rs. 60,051 against 55,099 in the year 1926. This does not include the pay of the District Medical Officer.

CHAPTER XIV.

Minor Articles.

Yamèthin District. The Yamèthin District lies between 19° 27′ and 20° 47 North and 95°34′ and 96°37′ East and is the most southerly district of Upper Burma. It forms part of the Mandalay Division and comprises the Yamèthin Subdivision containing the Yamèthin, Pyawbwè and Yanaung Townships and the Pyinmana Subdivision containing the Pyinmana and Lèwe Townships. It has an area of 4,178 square miles. The district is bounded on the North by the Meiktila District, on the East by the Southern Shan States, on the South by the Toungoo District and on the West by the Magwe and Thayetmyo Districts. A general discription of the district is given in Chapter I and the administrative divisions have been dealt with in Chapter IX.

Yamèthin Sub-division. The Yamèthin Subdivision is the northern subdivision of the district. Its southern boundary is formed by the Sinthe and Môn *Chaungs*. The other boundaries are those of the district. The population in 1931 was 206,502. It is divided into the three townships of Yamèthin, Pyawbwè and Yanaung.

Yamèthin Town. Yamèthin Town is the headquarters of the district, subdivision and township of the same name. It is the residence of the Deputy Commissioner, District Superintendent of Police and Civil Surgeon. The legends concerning its foundation and the origin of the name have been

given in Chapter II. The population at the census of 1931 was 9,291. The town is situated 653 feet above sea level on the watershed between the Irrawaddy and the Sittang and has the reputation of being the coolest station in the dry zone during the hot weather and rains.

The Burma Railways have fairly extensive repair workshops in the town which is one of the chief railway centres of the Province. Otherwise there is little business carried on and an air of decay broods over the town. The population has increased by only about 600 since the beginning of the century.

Yamèthin has been a municipality since 1888. The town is ill-kept and dirty and the roads are dreadful.

The civil station is situated to the west of the railway line and has almost as derelict an appearence as the rest of the town.

Besides the usual offices the chief buildings are a large Roman Catholic Church and a smaller Anglican Church, a Government Anglo-Vernacular high school, military police barracks, a police station, a jail, a hospital, a circuit house and a Public Works Department inspection bungalow.

Pyawbwè Township occupies the north-eastern portion of the Yamèthin Subdivision. At the census of 1931 the population was 54,669 of whom about one-nineth were resident in Pyawbwè Town, the remainder being distributed over 46 village-tracts. Pyawb Town-sihp.

Pyawbwè is the headquarters of the township of the same name. The population at the census of 1921 was 6,160. The Reserve Battalion, Burma Military Police, is situated here and the Commandant also manages the stud farm. Pyawb Town

The Yanaung Township occupies all the hilly country in the west of the district. At the census of 1931 the population was 61,353 distributed over 59 village-tracts. Yanau Town ship.

The headquarters of the township is at Yanaung which is merely a large village of 500 odd houses with a population of 2,098 at the 1931 census. Prior to 1907 the township headquarters was at Yindaw a still smaller village of 200 odd houses and 918 inhabitants. Neither place is of any importance or interest.

Prior to the annexation part of the township was included in the Nyaung-ywe-zi of the Shwepyi-Yanaung cavalry jurisdiction known as the *Myin-nè* which is discribed in Chapter IX and after the annexation was for a time included in the Meiktila District.

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* *N.B.*—Yanaung Township was amalgated with Pyawbwè Township in 1932, as a measure of economy.

yinmana ıbdivi- on.

Pyinmana Subdivision occupies the southern portion of the district. It is bounded on the north by the Sinthe and Môn *Chaungs* and its other boundaries are those of the district. The population in 1931 was 184,318. It is divided into the Pyinmana and Lèwe Townships.

yinmana own- ip.

Pyinmana Township occupies all the northern part of the Pyinmana Subdivision. The population in 1931 was 111,003. Nearly one-sixth of the population lives in Pyinmana Town and the remainder is distributed in 95 village tracts.

yin- ana.

Pyinmana is the headquarters of the township and subdivision of the same name. The population in 1931 was 17,656. It has been a municipality since 1888. Besides the Subdivisional Officer and Township Officer, it is the headquarters of the District and Sessions Judge, the Deputy Director of Agriculture, East Central Circle, and two Divisional Forest Officers (Yamèthin and Pyinmana) as well as the Forest School. It is also an important agency both of the Bombay-Burma Trading Corporation and of Messrs. Steel Brothers. The railway station is the junction for the Taungdwingyi-Kyaukpadaung Line and contains rest rooms and a restaurant. There is also a Public Works Department Inspection Bungalow. The church of England and the Roman Catholic Church each have a small church and the American Baptist Mission has established an Agricultural School in the eastern outskirts of the town. There is also a police station, a lock-up with insufficient accommodation, a hospital and a dispensary. Pyinmana is dependent for its prosperity on the rice and timber trades. The famous Pyinmana pottery is described in Chapter VI. The other trades are those ordinarily carried on in a Burmese town.

The name Pyinmana was originally applied to the village now called Pyinmana-haung and its neighbourhood. The legendary origin of the name is given in Chapter II. The present town of Pyinmana was founded in 1832 by Tha Dok Gyi, a dacoit leader who came and settled here on the south bank of the Ngalaik in the Kyaukchit Circle. He built a *Ningyan-Ku-tada* to enable the people to cross over the Ngalaik and new village was therefore called Ningyan and continued to be known by that name until the annexation. Tha Dok Gyi, though a stranger with not a very good reputation, attracted large numbers to his new settlement and was made *Myothugyi* of Kyaukchit, Pyinmana and Wekkabu Circles by Shwebo *Min*. He also dammed the Ngalaik for irrigation purposes and greatly increased the area available for rice cultivation. He died in 1896 and was succeeded by his son Maung E Maung who built the Beikpeinbaung Weir and during his time there was a further increase in

population. His son Maung Ya Baing succeeded him in 1871 and retained the *Myothugyiship* until his death in 1890 when it was broken up into eight ward-headmanships, *viz.*, Mingala, Thazi (so called because it was settled from Thazi), Masoyein, Shwebo, Shwekyi, Cha-nè, Gondan and Yanaung. These have since been reduced to four called Mingala, Shwekyi, Ywagauk (the old Thazi *Ayat*) and Yanaung.

The following account is taken from the *Gazetteer* of Upper Burma and the Shan States :—

"At the annexation the town of Pyinmana or Ningyan had no clearly defined boundaries and covered a large extent of ground. Most of the houses were surrounded by thick groves of plantains and other fruit trees. These impeded the view and on the east and south-east the houses gradually got fewer and fewer and merged in a dense belt of sugar cane and other high crops, through which it was difficult even for an elephant to make its way. The more central parts of the town were intersected by broad straight roads running at rightangles to one another, and excepting the main street these were all two or three feet deep in mud. Such a town offered every facility for dacoits and made their pursuit and capture very difficult. Bands of dacoits used to creep into the town and set fire to two or three houses while they robbed the inhabitants, and the police found such difficulty in getting through the mud that they were almost invariably too late to do anything. It is not surprising therefore that for several months after the occupation of Pyinmana, parts of the town were practically held by the dacoits. The construction of roads and the building of block-houses at intervals and their occupation with small parties of police eventually restored order.

The roads to Toungoo, Yamèthin, and even the five-mile road to Sinthewa remained very unsafe even for armed parties for nearly a year after the annexation. Notwithstanding several posts on the way, country carts which followed the convoys were habitually looted, the cattle carried off and the carts often broken up. Even the convoys sometimes suffered, and the mails had to be carried under a guard of twenty rifles."

At that time the town did not extend as far west as now. A stockade on the hill south of the Ngalaik near the present forest houses defended the town against attack from the west. A footpath led north where the trunk road now runs and a narrow wooden bridge crossed the Ngalaik Stream. The central sector of Abdul Hussein Road was then Circular Road, and Court House Road is on the line of a path which led past the old Forest Office now used as the Pyinmana Club. The Bombay-Burma Houses date from early days, the Subdivisional Officer lives in the old Deputy Commissioner's House, the Subdivisional Police Officer in that of the Officer Commanding the Troops, and the United Kingdom Club was once the Commissariat Office. Mr. Bernard, who was Subdivisional Officer in 1887, lived in a house on the bank of the Ngalaik and his daughter Ma Tu sold the property to the American Baptist Mission who still occupy the site. The western part was at one time occupied by the Superintendent

of Post Offices who had an office on the bank of the Ngalaik near by. The Civil Surgeon's House was a little to the north of this near the bridge. The old Police Office was on the site of the Sessions Judge's House and that ridge was until recently occupied by the Military Police Lines. The hospital was transferred some time before 1896 to the barracks which it still occupies and its old site was later taken up by the K.E.M. High School. Merchant Street was already so called in 1886 and the streets leading from it are named after early Deputy Commissioners.

Shwemyo. Shwemyo situated on the Sinthe about two miles from the northern border of the subdivision is one of the only three *myothugyiships* still existing in the district. The *myo* includes the subordinate village-tracts of Ywesu, Zayatkyigôn, Tègôn, Chaungpya, Thagiwin and Nanaw. There is a railway station about three-quarters mile from the village and a bazaar near the station which are included in an area notified as a town under the Upper Burma Land and Revenue Regulation.

Shwemyo was one of the fifty-two walled cities of the Toungoo Kingdom. King Mingyinyo received all this part of the country from the King of Ava in 1503 and Shwemyo was one of the nine strong posts he established to protect his new capital against attack from the north. During the following centuries however it fell into ruins and in 1778 Maung Twa obtained permission from Alaungpaya to restore it. He named it *Si-gyi-swè-myo* because there were hives of bees hung on the city walls. This old site was west of the railway line where the country was too dry and the people soon moved to the present site. The name is now attributed to this move.

Kyidaunggan. Prior to 1900 Kyidaunggan was the headquarters of a township of that name which comprised the earlier townships of Paunglaung and Taungnyo. It is still the residence of one of the three surviving *myothugyis* in the district. The present *myothugyi*, U Yon, now a very old man was at first an active supporter of Buddha Yaza but later assisted in the pacification. The *myo* contains the subordinate village-tracts of Zigôn, Letha, Pyokkwè, Kyalengôn and Pazunzeik.

There is a police station, a railway station, a bazaar and a Public Works Department inspection bungalow. Part of the town has been notified as a town under the Upper Burma Land and Revenue Regulation. The object of notification here (as in Shwemyo) is to provide for a proper layout and the issue of leases for house-sites.

In 1525 when the Shans were attacking Ava King Mingyinyo of Toungoo went north to see what he could get.

One night he had a dream in which the Nyaungsaung *Nat* appeared and told him that his kingdom was secure for the lives of himself, his son and his grandson. However to make sure he ordered a strong fortress to be built on the spot and called it Pyagaung (a good sign given). This city however lasted only for 50 years when it was abandoned until, in 1803, Maung Maung with the title of *Myothugyi* was ordered to restore it. He called his new settlement Kyidaunggan. The ruins of Pyagaung are still traceable.

Yezin-Kyidaung.

The Yezin *Myothugyiship* occupies most of the territory of the old Thitkyeik State whtch had been restored by King Mindon but was abolished by King Thibaw. An account is given below. It extends from the border of the Shwemyo *myo* in the north to Kadozeik in the south and within those limits includes most of the land between the Sinthe and the Paunglaung and east of the Paunglaung to the district boundary. The subordinate village-tracts are Maudaw, Theyetkon, Kyidaung, Zibingyi, Kadozeik and the Karen hill villages of Kwetugyi, Kwetugale, Ngokchaung and Mè-bauk. The *Myothugyi* is U Lugale who prior to the annexation was clerk to the Thitkyeik Wun who took over the state on the deposition of the *Sawbwa*. U Lu Gale at first took up arms against the British but later he rendered most valuable service in pacifying the district. He relates that he was given the option of becoming *myothugyi* and establishing and preserving law and order or of paying a fine of Rs. 2,000.

Yezin is situated on the Trunk Road 11 miles from Pyinmana and also on one of the most frequented routes from the Shan States. A branch road leads to the railway at Kyidaunggan but is interrupted by the Sinthe River. There is a bazaar at Yezin.

Kyidaung is on the Paunglaung River only a few miles below the place where it debouches into the plains. It is said to have been founded under the orders of Sinbyushin Mintaya of Toungoo in 970 B.E. (1608) by a Karen named Than Gauk who brought one hundred households from Ngwedaung Naungpalè in Western Karenni. His method of increasing the size of Kyidaung was to attack and burn the neighbouring villages and carry of the inhabitants to his new settlement. It was the headquarters of the Thitkyeik Sawbwa and the site of the *Haw* is still pointed out. Yezin was also founded by Karens but no details are known.

Former Thitkyeik State.

The following account of the Thitkyeik State is given in the Original Settlement Report :—

"Between Ketumadi (present Toungoo), Mobyegyi and Lwèlon (composed of 12 hills) States there was a triangular piece of land encircled by a stream and covered with dense jungle. In 1120 B.E.

(1758 A.D.) a Karen adventurer by the name of Thekyibo, taking up with him over 100 householders from Ngwedaung Naungpalè in the Mobyegyi State, settled there. These settlers in accordance with their national custom practised *taungya* cultivation.

"This small settlement throve and in 1124 (1762 A.D.) it was by permission of the Mobyegyi *Sawbwa* constituted into a *Myozaship* under the name of Thitkyeikkyi and henceforth it paid tribute. In 1145 B.E. (1783 A.D.) during the reign of King Bodawpara, the genealogy of the founder of this little state was enrolled in the royal archives and the State was promoted to a *Sawbwaship*. Again in 1164 B.E. (1802 A.D.) a similar enrolment was made. The number of households in the State at the time was about 200. In 1171 B.E. (1809 A.D.). Thekyibo died and his son and heir Thekyiba succeeded him. But the Karennis who entertained a feud against the late *Sawbwa* invaded the State with five hundred warriors and destroyed it by slaughtering all its inhabitants and by burning down all the houses in it.

"In 1214 B.E. (1852 A.D.) Mindon Min, the founder of Mandalay, became King. About the King's person was a Shan page, Sawkunpon, who was the King's lapet-yedaw (Royal Tea Server). In 1236 B.E. (1874 A.D.) the King was pleased to confer upon him the title of Mahathiriwuntha Thohanbwa, and to appoint him *Myoza* of the Thitkyeikkyi State. About two years afterwards tne King was again pleased to promote him to a *Sawbwaship* under the title of Kanbawza rata Mahathiriwuntha thudama yaza. The King at the same time granted to him the following tracts of land :–

Elazeyathein ...	Kanbyu Kayinywa	}	from Lwelon.
Taungwin ...	Yebu ...		
Kyidaung yezin ...	Kyaukkwe ...		
Shwebe ...	Pinnagaywa ...		
Taungwin thittat ...	Banyin ...		
Pokun ...	Hinthagyaung ...		
Taungpalè mayigon-nethikoywa.			
Yinywa ..	from Mobye		

and 14 hill chiefships extending form Byinkyè Hill south-wards to Thandaung which forms the boundary of Ketumadi State. In 1240 B.E. (1876 A.D.) King Mindon died and was succeeded by King Thibaw. In 1243 B.E. (1881 A.D.) the Commander-in-chief of the forces in the Shan States Bo Manga, was sent out as a Mingyi (Commissioner) to administer Meiktila, Yindaw, Yanaung, Tayan-ga, Nyaungyan, Hlaingdet, Thagaya, Toungoo, Yamèthin and the Thitkyeikkyi State with its nine dependencies. From Pyinmana, which he had made his headquarters, Bo Manga sent for the *Sawbwa* of Thitkyeikkyi on political grounds. The *Sawbwa* disobeyed him. Taking this to be a defiance directed not at him but at his Sovereign, Bo Manga reported to King Thibaw that the *Sawbwa* of Thitkyekkyi had mustered a strong force and intended to rebel against his majesty, whereupon the King ordered that the traitor's territory should be invaded and the traitor himself be killed and crucified as a warning to other chiefs. On receipt of this order Bo Manga ordered out an army of four divisions disposed as follows :—

First Division consisting of 500 men to command the Zalithikyein Road, under three generals.

Second Division consisting of 500 men to command the Ngwedaung thaya-wun Road under two generals.

Third Division consisting of 500 men to command the Magyigontaungpulugyawmo Road under two generals.

Fourth Division consisting of 500 men to command the Bawnidon-tadagu Road under two generals.

"The generals confidently declared that they would soon secure the traitor and place him before the Commissioner. Then they commenced their march and in due course of time surrounded the little State. The *Sawbwa* and his wife attended by only four of their servants escaped towards the east. The Commissioner sent an order to the hill chiefs of Lwèlon, in these words, 'You have sworn allegiance to our majesty. The traitor, Saw Kun Pon, has escaped and will take refuge in your territory. You are therefore required to place armed men at all the ways and paths leading to your territory to intercept him. If you succeed in sending him to me, either alive or dead, you will obtain as your reward such villages of the traitor's country as are adjoining yours and which you may choose.' The Lwèlon Chief, Min Konwara, despatched 1,(00 Shan and Karen warriors under three chiefs, *viz.*, Thamonhein, Sein and Kyaw, after having instructed them where to station themselves, while he himself marched out at the head of a force and occupied a position between Nanba and Okshit Villages. The refugees then fell into the hand of the Lwèlon Chief. The young *Sawbwa* made over to him whatever gems of value he had brought away and asked the Chief to spare his life and allow him to escape. The Chief who bore him a grudge refused to sh w him any mercy and killed him. Then his head was cut off and sent to the Commissioner ; and the Lwèlon Chief received 2) villages of the murdered *Sawbwa's* State as his reward and has occupied them ever since."

The rest of the State was placed under the Ningyan *Thitlaw Wun* who was thereafter called the *Thitkyeik Wun* and had as his Clerk U Lu Gale who is still *Myothugyi* of Yezin.

The Tributary Karen tract of Alègyaung-Bawgata lies east of the Sittang in the extreme south-eastern corner of Pyinmana Township, and is separated from the Shan State of Mong Pai on the north by the Kansaung and Hsabalan Streams and on the east by mountains, and from Bomataung Village-tract on the north-west by the Nancho River. South-west lies Kodit Tract, and south is Toungoo District. It covers an area of about 100 square miles, and in olden days extended still further. Till 1892 it included Kodit and even Nampone to the west. Men of Alègyaung-Bawgata first settled at Nampone, but they abandoned it, and it was re-settled in 1901 by Chins from Kyauk-o, but it is now under the Karen headman of Hngetgyidaung. Alègyaung-Bawgata consists of eleven villages, at distances from each other of four to ten miles, mostly situated on the brows of low hills close to streams. Around them tower mountains of 4,000 feet and more, thickly clad with jungle, except where *taungyas* are cut. Besides rice, some betel is cultivated, and pigs and fine-looking poultry are reared. Alègyaung Bawgata

Communications are maintained with the Shan States, Toungoo and Bomataung, by paths, and with the remainder

of Pyinmana Subdivision by a path which leads through Kodit to the Bombay-Burma cart-road near Nampone, descending thence to Yeni or Thawatti.

Though the number of villages has increased, the population has dwindled from 801 in 1911 and 829 in 1921 to 711 in 1931. The *taungsa* states that there was exceptionally heavy mortality in 1923 from ravages of "tokkwe" (influenza) of which 115 people died.

The present villages are :—

Alègyaung Atet (Keschoron in Karen). This was the capital where the *Sawbwa* or *taungsa* lived. The old site was on a tributary of the Nancho ; but the present hamlet of only nine houses is further north-east. This village was converted by Roman Catholic priests from Toungoo in about 1880. There is a church.

Alègyaung Alè was, with the Aukywa, the next to receive Christianity. By 1901 the village had ceased to exist, but it now has 32 houses and is the capital. There is a wooden church with tin roofing but the school was closed about ten years ago.

Alègyaung Auk has risen from eight households to ten. The church is of mat-walling.

Bawgata Atet (Kamulăn in Karen) lies north-west of the Alègyaungs. It has twelve households, as in 1901, and the inhabitants were converted in about 1893. The church is of matting and bamboo, and faces the wrong way.

Bawgata Auk, with 16 households, has a small church with its chancel facing west, but the school is closed.

Bawgata Alè or Ywathit is a village that has constantly changed its site. There are now seven houses and a church.

Taungmyit Atet (Saiblok in Karen) has dwindled from 20 houses to nine. It became catholic in 1894, and had a school and resident schoolmaster, but the school was closed in about 1920. The church still stands.

Taungmyit Auk had twelve households, all nat-worshippers, in 1901. There are now fifteen, all catholic. The bamboo church has, like the others, a small spire, placed, unlike theirs, at the east end.

Ywabein Atet (Sibukon in Karen) has risen from six to eight households. The inhabitants were converted in 1901. There was formerly a school, and there is still a small church.

Ywabein Auk is a recent hamlet of four houses.

Alegyaung Ywathit was formed by ten households from Aleywa a few years ago, in defiance of the *taungsa's* orders and the matter is being investigated.

The inhabitants are al Geccko, or White Karens. It is conjectured that they came from the south-east about one hnndred years ago.

In 1901, there were 43 Animists and 758 Christians but by 1921 there were none of the former, there being 825 Christians and four Buddhists.

The ruler of Alègyaung-Bawgata is variously called *Sawbwa*, *Taungsa*, *Sawkè*, *Tamon*, *Myosa* and *Thugyi*. In Burmese times, he was a *Sawbwa*, nominally under control of the *myowun* in Ningyan (Pyinmana). Foreign Department letter No 670—106 of 20th May 1890 said that Alegyaung Bawgata must be regarded as an integral portion of the (then) Pyinmana District, and that the *taungsa's* position should be that of a *myot ugyi*. By rule XVIII of Local Government General Department Notification 230 of 17th September 1891, the Commissioner has to report to Government the appointment of each new ruler. In 1900 the Commissioner of Meiktila Division suggested that he should still rank as *myothugyi*, but in 1901, the Lieutenant-Governor agreed that he should be called *taungsa* but regarded officially as a *ywathugyi*.

The *taungsa* seems to be higher than a village headman but lower than a *sawbwa*. He collects a number of taxes and fees, from which he pays a fixed annual tribute, and appoints subordinate headmen and *ywagaungs*. His subordinates resemble *ywagaungs* in that they have no *kansa* and collect no taxes, but they are called *thugyis* and the one at Taungmyit Auk seems to be more nearly a real headman as his sway is acknowledged in Taungmyit Atet, though this has its own *thugyi* as well.

Ethataung, who was *taungsa* till 1900, had second class magisterial powers. His successor Ebukaw was given special powers, under section 6 (*4*) of the Upper Burma Village Regulation of 1887. No crimes are ever committed in these blest regions, but such would have to be reported at the nearest police station—Ela—and judged by a Pyinmana court. The *taungsa* however still tries civil suits, and deals with questions of marriage and divorce by Karen custom. The party who agrees to the *taungsa's* decision in a suit and then fails to ratify it is subjected to a fine. The plaintiff pays a court-fee at the rate of one anna per rupee's worth of property in dispute.

Alègyaung-Bawgata pays "*Siko-letsaungdaw-ngwe*" or *kadawkye*, an annual tribute of one hundred rupees. In Burmese times, a tax of four annas a household was levied, and the *sawbwa* was free to raise other money for his own support.

Early in the present century, the *taungsa* had four sources of revenue : (*a*) a house-tax of Rs. 1-4-0 a year, (*b*) a fee of Rs. 30 from the father and Rs. 20 from the mother, of every illegitimate child, (*c*) a present proportionate to a couple's means on marriage, (*d*) three days' labour at ploughing, planting and reaping the *taungsa's* fields each year from every household.

The house-tax is unchanged, but the tax on incontinence has fallen to Rs. 12 and Rs. 8 for father and mother respectively. The marriage-fee is now Rs. 5 from each party; and each village now labours for one day on the *taungsa's* lands. If cultivators from outside enter Alègyaung-Bawgata and cut *taungyas* in it, they have to pay the *taungsa* a rent of one rupee per "kin" or holding; but they often refuse. This fee is also levied in neighbouring Karen village-tracts.

Unreliable tradition states that Alègyaung-Bawgata has been settled for 120 years or more, and the *taungsa* thinks that the ancestral drum in his possession is over one hundred years' old. The names of the earlier *sawbwas* are lost from the memory of man, save that of one man who seems to have flourished in about 1820, and his son Chanbaikl (?) who succeeded him. Next after them was, probably, Kyawsanbo, a historical character, who died in about 1860 and was followed by his son Nyeinyi, who died in 1871. Nyeinyi's son Eteik married a daughter of the *Sawbwa* of Taunggyaung, but only reigned about four years. His sons being too young to rule, Sanbugayo another son of Nyeinyi became *sawbwa*. In a petition of 1900, Maung Pyu states that Sanbugayo "resigned because he had no *kansa*," but the plain truth is that he was assassinated in 1880. Eteik's heirs being still minors, Ethataung, brother of Nyeinyi, was appointed temporarily. An obscure letter from Father Mana filed in the 1901 election proceeding, states that a Mr. (?) M'Clear, Deputy Commissioner of Toungoo, appointed Ethataung to officiate during the minority of Ebukaw, son of Eteik, and arranged with Dr. Farnatore, the Roman Catholic Bishop of Toungoo, for Ebukaw's education. One would have thought that the boundary drawn after the second Anglo-Burmese war would have left Alègyaung under the Burmese Kings but the line was a little obscure among these distant mountains. The inhabitants, in general, consider that they only came under British sway in 1886 ; and that until then they were in the jurisdiction of the Ningyan *Myowun*, to whom they paid a tax of four annas a household a year. In about 1880 the Roman Catholic Mission, which had been pressing east and north-east from Toungoo, reached Alègyaung. The priests' custom was, if a village's elders

made application, to send a teacher, on condition that he would be withdrawn if the whole village did not accept Christianity. By the annexation, the three Alègyaung villages had been converted. Bawgata and Taungmyit Atet following in about 1895, Ywabein in April 1901, and Bawgata, Ywathit and Taungmyit Auk in the ensuing decade.

Ethataung did not at first accept British rule, and his territory became the headquarters of Burmese irregulars, of whom there were no less than four gangs in 1888. The British established military police posts but those at Yegon (in Toungoo) and at Letpettaung were destroyed in 1887. The dacoits were not finally subdued till 1889. In March of that year Mr. Porter, the Deputy Commissioner of Pyinmana, led an expedition into this territory. Ethataung submitted on the advice of the Roman Catholic priests. The troops stayed two or three days in Alègyaung and then continued on their way.

Ethataung remained in power, and in May 1890 was made a second class magistrate though he never exercised the powers of that office. Though at first only officiating, he had come to be looked on as the permanent incumbent during his twenty years of rule ; so that when he died in 1900, his eldest son Maung Pyu was appointed as temporary *taungsa*. It being represented, however, that Etaik's son Ebukaw was now twenty-four years of age and had a better title, an election was held on 4th and 5th May 1901 by Mr. E. Colston, I.C.S., the Subdivisional Officer. Others present were the Township Officer, the Yezin *Myothugyi* (who had considerable influence over all the Karen villages) and Father Mana the priest. The catholics voted solid for Ebukaw who received 89 votes to the eleven Animist votes recorded for Maung Pyu, and he was duly appointed as *taungsa*, the Lieutenant-Governor confirming the electors' choice. Maung Pyu would have been a most unsuitable chief, as he had been fined sixty rupees in 1899 for kidnapping from Toungoo District a man who had been his mother-in-law's slave, and also narrowly avoided conviction for receiving stolen cattle. He and his brother Shwe Thaik withdrew to Maungkyaw in Toungoo. Ebukaw was given special powers under the Village Regulation, and proved an able and loyal ruler. During his time, the Bombay-Burma Trading Corporation worked timber for some years near Bawgata. Boundary disputes with Toungoo and Kodit were settled in 1914, after the visit of Major Biggwither, Deputy Commissioner, Yamèthin, in April. A curious incident occurred between 1921 and 1923. U Lu Gale, the Yezin *Myothugyi*, though really

only an intermediary between the hill-men and the Pyinmana authorities, still considered himself the Karens' overlord, and in 1921 he began conversation with the *Sawbwa* of the Shan State of Mong Pai, as a result of which he transferred the territories of Alègyaung-Bawgata, Padaung, Koywa and Mèbauk, to the *Sawbwa* in 1925, with the villagers' consent ; and handed over lists of households and maps. Presumably the *myothugyi* received a consideration, but the reason he gave was that on his death his *myo* would be split up and it would be difficult to supervise these tracts from Pyinmana. The *Sawbwa* told the headman to bring what tribute they wished, though his *amatgyi* expected them to pay the same tribute as they had previously paid to Pyinmana but the Assistant Superintendent at Taunggyi found out the transaction before money changed hands, and the tracts reverted to the jurisdiction of Pyinmana, the Subdivisional Officer of which had remained blissfully unconscious of the loss of a large slice of his territory. Indeed, he later wrote to the Assistant Superintendent, Taunggyi, suggesting that the latter should keep it, but the proposal was not well received.

Ebukaw died in 1924, leaving—as seems customary with these *taungsas*—a minor son. His brother Paukyon was elected by the villagers to "hold the fort," in May 1925, the election being very similar to that of 1901. He received the Roman Catholic vote to the tune of 84 ; Maung Pyu, who stood again, received seven votes of recently converted Animists in his old village of Alègyaung Atet, and Shwe Thaik's son, the S.P.G. teacher at Kodit, gained not a single suffrage. Paukyon resigned in favour of Ebukaw's son Ekaung in August 1929 ; he was a man of better education than the average villager, having spent several years in Toungoo, and passed the Elementary Teachership Examination. Ekaung was probably born on 12th May 1911. He was educated at R.C. School, Toungoo, and should prove an intelligent *taungsa*. At present there is no *taungsa*, though the people regard Ekaung as such. Maung Pyu, now a man of 55 and describing himself as a Buddhist, still nurses his grievances at Maungkyaw. The priest in charge of the Chekko tribes was Father Pedrozzi after Father Mana, and for the last ten years Father Marcuzzi. He holds services in the villages about four times a year. The four schools that formerly existed all ceased in about 1920, as the villagers were too poor to support teachers and children go for instruction to Maungkyaw, where there are fifty students. An attempt is now being made to re-establish a school at Alègyaung Alè.

Pyadaung Koywa. The tributary Karen Tract of Pyadaung-Koywa, formerly called a State is situated in the hills east of the Sittang in the Pyinmana Township round the headwaters of the Nancho Stream. It is ruled by a *taungsa* or *tamon* under whom each of the separate villages has its own hereditary headman. In 1921 the population was 774 but in 1931 had fallen to 658. The inhabitants are Karens with a few Palaungs and Shans and except for a few Animists are all Buddhists. The tract pays an annual *kadawkye* tribute of Rs. 60.

Taung-nyo. Taungnyo, a village lying between the Ngalaik and Taungnyo Forest Reserves, has a long legendary history going back according to local tradition through previous successive villages on the same site to a period eight thousand years before Buddha.

In the year 8645 before Buddha there is supposed to have been a village on this site called Masala. The villagers were nat-worshippers. In that year Insana *Min*, grandfather of Buddha, came to Masala and, seeing the large number of nat-altars, renamed the village Nat Paw Ywa (နတ်ပေါ်ရွာ). But the large camp he made there and the number of his mandats seems to have caused the name to be changed to Nandaw Paw Ywa (နန်းတော်ပေါ်ရွာ) this in time became Nandawpaw (နန်းတော်ပေါ်) and then Nandawbaw (နန်းတော်ဗေါ်).

Near Nandabaw there was a hill called Myaseindaung. To this hill came Buddha in his travels in Burma, and he sat on a throne there : from this the hill was called Gaudapalin ; it is also called Gandapalin. (There is a Burmese song which begins ("Myaseintaung nyo nyo ga . . . . . "). On this hill the men, *nats*, dragons and so forth that came to worship Buddha, later built a pagoda : and there is a pagoda there now. (Another legend says the pagoda was founded by Asoka.)

There was a wise man (ပိဋ္ဋကာဓိုရ်) who had a son by the daughter of the Headman of Nandabaw. This son, Mawgazauk, grew up to be a man of great power and influence, and of supernatural wisdom. On one occasion he won some of his intimate friends into slavery by a wager on the death of a *thamin* which he foretold, and a certain hermit was so impressed that he took Mawgazauk and taught him for a while. He became a great king and had a palace at Nandabaw. In the year 202 B.E. (840 A.D.) he died and his son, Mawzawgandu, reigned in his place.

When Buddha died, Mawzawgandu came into possession of 37 relics left after the cremation. (Dates as usual are not to be insisted on.) Some of these he placed in the

pagoda at Gaudapalin and the rest he placed in a pagoda he had built at Pepeyaung 20 miles south of Gaudapalin (south-east of Kyetpye). He also built a road connecting these two places by which the relics were conveyed to Pepeyaung and half-way on the road he had a resting-place prepared. This place was called Sanhlut, from the fact that one Maung San was sent to make the arrangements : but the name was changed later to Maungyan, that being the name of the person responsible for the building of the new rest-houses.

After the death of Mawzawgandu, his son Maung Bo was king. He had two daughters, Mya Hnin Yi and Saw Hnin Yi.

The elder daughter, Mya Hnin Yi, was married to one of the kings of Prome. But some of the relics from the Gaudapalin pagoda lodged in some mysterious manner in her earrings and were seen there shining. Her husband, taking this as a sign that she was possessed of an evil spirit, banished her from his kingdom, and she returned to her home in Nandabaw. But later, repenting, or finding his mistake, he came to call her back to him.

When they met, he stooped and scratched the sand, that water might issue as a sign and a pledge to her ; and from that spot there rose a *chaung* which was called the Nga-laik *Chaung* since it was a sign that Mya Hnin Yi had to follow the king from Prome. On their journey back to Prome a flower that she wore in her hair faded and dropped to the ground at the place now called Pan-ṅnyo-san, "the spring of the faded flower" (in Lèwe Township).

The King of Nandabaw, Maung Bo, became involved in a quarrel with two princes from Lower Burma over a certain white elephant that they had followed to his territory. He escaped from them to Thawungyi, the overlord of the district in which Nandabaw was, but Thawungyi killed him. Maung Bo became a Natsein, and obtained from Thawungyi a hill to the east of Nandabaw to dwell in. This is the hill known as "Maung Bo saung taung," or Posaungdaung.

Thawunngè, one of the overlords of the district, became King of Nandabaw. After his death he was succeeded by his elder son, and on the latter's death the younger son, Thameiktayaza, who was ignorant and mad, became king. His mother was Saw Hnin Yi, the younger daughter of Maung Bo. He took his mother as a wife, after obtaining the consent of his ministers by a trick. In punishment for this incestuous marriage the town was destroyed and swallowed up under the earth in the year 315 B.E. (953 A.D.). The hill which was heaped upon Nandabaw was called Taung-myo (တောင်မြို့) and the town was Taungmyo Myo (တောင်မြို့မြို့). Later this became Taungnyo.

This story differs in kings' names and dates from that recorded in Chapter II, but the essential legend of a great city swallowed up in the earth with a hill heaped upon it in punishment of its king's incest is the same in both accounts. The present village of Taungnyo lies at the foot of the hill which gives it its name. The line of the walls and most of the old city is still traceable round the base of the hill, strips of paddy-land being the remains of the moat. On the hill itself are to be found many pieces of broken pottery.

The villagers say that on the full moon nights of *Tagu* and *Thadingyut* ghostly music is heard round about the site of the old town of Nandabaw.

The Taungnyo Valley, apparently with its local capital at Taungnyo, was, according to Mr. Taw Sein Ko, a Pyu settlement. There are local legends, some of which have been already quoted in Chapter II, referring to the Pyus.

The Taungnyo Township, as it was called before the annexation, passed entirely into the hands of the rebels in 1886 and remained so until the end of that year. It was the main support of Buddha Yaza, who levied men and money from the people but at the same time maintained order and checked inter-village dacoity.

There is a small *chaung* near the village, with a channel running round the north and east sides of the hill. This is called the Naga-la *Chaung*: the legend is that there used to be a dragon in the neighbourhood which used this channel when he made his way to the Gandapalin Pagoda to worship. The long flight of steps which ascend the east side of the hill and which form a very conspicuous landmark from the south are flanked with masonry dragons representing this Nat Naga.

There used to be a yearly festival on the Gaudapalin Pagoda Hill, which is joined to the Taung-myo Hill by a narrow neck of high ground. But lately, since there ceased to be a *Myothugyi* of Taungnyo, this has been allowed to die out.

Led dau

This is a pagoda hill, 868 feet high, in the Kyidaung Village-tract. There are a number of legends connected with it and neighbouring hills. One purports to explain the origin of the name and is as follows. Long ago a hunter set out in the jungle with many dogs. When he reached a certain stream he picked out the 500 strongest from among the dogs and sent the remainder back home. Then he stood up and looked about him to the east and to the north. He saw nothing but mountains. This place has since been called Kyidaung (originally ကြည့်တောင်, now ကြည်တောင်). The hunter then went on to the northward and began to ascend a hill.

Half-way up the hill his dogs came on the children of a tribe of ogres (*bilus*) and ate them up on the spot. When the *bilus* returned from seeking food in the jungle and found their children missing they began to search for them. They saw the hunter's dogs, surmised what had happened and chased the dogs. The hunter seeing this ran on up the hill and coming to a cave shouted out for help. In this cave there lived a *zawgyi* who came out to ask what the shouting was about. The hunter told him. Whereupon the *zawgyi* by the exercise of his magical powers caused a mighty wind to blow against the *bilus*, so strong that it put them to flight. The *zawgyi* further decreed that this wind should blow every cold weather ever afterward so that no mist nor dew could fall. As a result of this the crops on the fields near this hill are always inferior to those on other fields. The hill has been called Ledwindaung (လေတွင်းတောင်) ever since, probably because the magic wind blew out of the *zawgyi's* cave though this is not explicitly stated.

Another version of the same story says the bereaved *bilu* parents, instead of seeing the dogs as soon as they missed their children, followed them up by their footprints. The chase was stern and at a certain stream the *bilus* rested and chose the 500 strongest among them to continue the hunt. There 500 then crossed the stream abreast (ရင်ဘောင်တန်း) and continued the pursuit. From this the stream was known as Ywethanchaung (ရွေသန်ချောင်း:) corrupted into Yweganchaung (ရွေးခံချောင်း). This is the stream now known as the Paunglaung. (One manuscript says Paunglaung is a corruption of Paundan, in turn an abbreviation of Yinpaungdan, not perhaps more far-fetched than other Burmese etymologies.) Soon after crossing the stream the *bilus* sighted the dogs and let out a shout which caused the dogs, now on the Badamyazeditaung, the former name for the Ledwindaung, to beg for help from a hermit who lived on the hill. The hermit then, as in the other story, produced the mighty wind which however was even more effectual, for the *Bilus* all died in the blast. They then became a wild race called Palaing (ပလိုင်း) killing with the bow every kind of animal, eating the flesh and stringing the teeth for necklaces which they wore in the belief that these would ensure long life and freedom from calamity. They continued to live on the hill where they died, giving it yet another name—Taungpila (တောင်ဘီလာ). The former name, Badamyazeditaung, is indicative of the belief in hidden treasure connected with this and neighbouring hills. The Ngahmangan Thaiksa says the hill is

so called because of a ruby (ပတ္တမြားရတနာ) hidden in the hill and guarded by a *naga*. The same Thaiksa gives other references to treasure on or in the hill :—"In the south-western spur of Taungpila there are Kyauk-kun-thi (stones used as charms) enough to fill a monk's alms-bowl. Propitiate the Taungdaing *Nat* (*i.e.*, the guardian *nat* of the hill) and take them." And again :— "On the Badamyazedi-taung there are many kinds of precious stones made and placed there by ascetics and *zawgyis*. But the *nats* keep them hidden and invisible to mortal eyes."

The legend of the founding of the Komokpyan Pagoda on the Ledwindaung is also connected with treasure. Three brothers living in the Baw, Yezin and Kyidaung Village-tracts, respectively, at the time they were ordained monks, while studying the scriptures, discovered in clefts in the rocks bars and slabs of silver made and hidden by the men of old. They sent for a supporter of religion and told him to take this silver and build the Komokpyan Pagoda on the Ledwindaung for the benefit of posterity.

There is another legend of treasure hidden in the ground near the Nyaunglebin *In* about a mile north-west of Kyidaung Village. A certain *thaiksaya* (hidden treasure expert) came up with his followers to dig for this. While they were digging, a golden boat manned by small golden figures each holding a golden paddle appeared on the lake. In the boat was a golden gong. The *thaiksaya* took the figures and gave one to each of his followers, strictly enjoining them not to beat the golden gong.

One of his followers disregarded the warning and beat the gong, whereupon the figures leapt into the boat again and paddled away through a large flat rock to the north of the pagoda on the Ledwindaung. They entered the rock on the south side and left it on the north. The cleft in the rock can still be seen to-day.

Another version apparently of the same story describes how a *thaiksaya* with his men came up to search for a treasure hidden by an ascetic on the Ledwindaung. The treasure was guarded by a female *nat*, who caused the *thaiksaya* to see a golden boat full of gold on a non-existent stream on the hill side. The *thaiksaya* and his men plunged into the illusory water to seize the boat only to be impaled on stakes set up by the *nat*. The boat then disappeared into a cleft in the rocks which the local villagers are still able to point out.

Sink dau

This is another pagoda hill about six miles south of the Ledwindaung and in the Kadozeik Village-tract. It is 710 feet high. The legend connected with its name is as follows. The great Sadan elephant who dwelt in the Himalayas

desired a place to meditate on the law. Knowing that the Buddha, when in a former existence a monkey, had lived on hills to the east of Kadozeik Village, the Sadan chose this hill and flying to it through the air, there came down and dwelt in a cave. One day, the wife of a cultivator, while her husband was afield, spread out her *tamein* in the sun near the entrance of the cave. This so disturbed the meditations of the Sadan that, sinking into the ground, he made his way underground to Pagan, there emerged and bathed and thence, again underground, proceeded to Pegu. From the sojourn of the Sadan on the hill the hill is called Sinbyudaung. His foot-prints are still to be seen on the hill and the cave where he dwelt and from which he began his underground journey to Pagan is still called Sinbyudwin.

This hill used to be called Nagadaung because a Naga lived on its summit. Similarly, the Sinbyudwin was known also as Nagadwin. In the past attempts have been made to build pagodas on this hill, but they were always frustrated by the *naga*, who objected to pagodas on his hill. However, a few years ago U Khanti, the famous ascetic of Mandalay Hill, inspired the neighbouring villagers to build a pagoda on the hill. This time the building was completed, the pagoda was known as Tagogyi, and an annual pagoda festival has been held at it ever since. U Khanti has also had *tazaungs* built and this year (1932) is erecting a gigantic figure of the Buddha on the hill.

As with the Ledwindaung there are legends of treasure hidden on and near the Sinbyudaung. The already quoted Ngahmangan Thaiksa says :—" In the hole at the top of this hill (the Nagadwin on the Nagadaung) there is treasure guarded by the *naga*, who is very powerful. Do not dig for it. You will not overcome the *naga* ." The same *thaiksa* goes on :—" North-east of the Nagadwin at the foot of a teak stump are five viss of silver. Propitiate the Ma Gyi Byu Nat and take it. South-east of this at the foot of the hill there is an *in*. In that *in* is treasure (directions, very obscure, for finding the position of the treasure are given). Propitiate the Ma Gyi Byu Nat by making her an offering of food and take it. North of this about half a *daing* distant at a foot of a wild *zi* tree are gold and silver buried by Ma Kayin. The weight is not known." The *thaiksa* continues with its instructions for finding treasure, moving from this point north to the Ledwindaung (Badamyazeditaung or Taungpila). Some of these instructions have been quoted in the notes on the Ledwindaung. Other places in the Pyinmana or Lèwe Townships mentioned in this *thaiksa* as being respositories of treasure are a pagoda south of Seiknandon, a white *kalein*

tree at Pyinmana itself, the Wethodaung (a hill south of the Sinbyudaung), an *in* south-east of Lèma and an old well at Ela.

The guardian *nat* of the Sinbyudaung is Mè Daw Byu (Ma Gyi Byu), while the guardian *nat* of the Ledwindaung is her sister, Mè Daw Nyo. A brother of these two sisters is the guardian *nat* of the Sanledu, a pagoda hill a few miles north of Kyidaung.

Lèwe Township.

The Lèwe Township occupies the southern portion of the Pyinmana Subdivision and of the district. It is bordered on the north by the Pyinmana Township and its other boundaries are those of the district. In 1931 the population was 73,315 persons living in 64 village-tracts.

Lèwe.

Lèwe is the headquarters of the township of the same name. The population in 1931 numbered 4,384. The village was founded in 1788 and got its name because it was very far from the paddy-fields. But in spite of this it prospered and eventually superseded the old Myo of Wanwègon (now Myogon) which had been re-established in 1752. The construction of the Pyilonchantha Tank in 1899 and the consequent spread of cultivation brought increased prosperity and Lèwe is now a flourishing town with a number of Indian and Chinese shop-keepers standing on the very edge of one of the most fertile paddy plains of the province.

There is a railway station on the Pyinmana-Kyaukpadaung Line along which a good deal of rice is exported to the dry zone but most of the local passenger traffic with Pyinmana is by motor bus along the Trunk Road. Lèwe is also conveniently situated for a number of forest reserves and in normal times enjoys a considerable profit from the timber trade. There are three rice mills and a saw mill.

Ela.

Ela is a station on the main line and in 1931 contained 4,374 inhabitants including those in the subordinate villages. There is a police station, a Forest Department depôt and a dak bungalow, a five-day bazaar and some shops. U Ba Oh's Light Railway starts from Ela Station. Paddy and timber are, as elsewhere, the main articles of commerce but there is also some trade in tobacco which is extensively grown along the banks of the Sittang. The present village was founded in 1860 by Maung Tha Shwe and was at first called E-hla-thi-ywa because it was shady and cool. The history of earlier settlements is given in Chapter II.

Some place-name legen

There is a legend purporting to give the origin of some of the place-names along the Pyinmana-Taungdwingyi Railway Line. Princess Mè Saw, the only daughter of a famous Burmese King, fell in love with one of her father's attendants named Po Kya. They dared not declare their love,

knowing that the king would kill them if he heard of it. So one day they fled secretly from the palace and made for Taungdwingyi, where another king was in power. When the elopement was discovered Mè Saw's brother, the prince, at once followed up the lovers with his men, under orders from the king to kill them both. When he reached Dalangyun (ဒလန်ချွန်) he found Mè Saw's camp with signs of occupation only a day or two old and ordered his men to sharpen their *dahs* and spears (ဓါးလှန်ချွန်ကြ), as they were nearing their quarry. The place was therefore called Dahlanchun, which has now become Dalangyun. The chase continued and the pursuers arrived at Obauk (in Magwe District), where they found that the lovers had just left. The prince ordered his men to hurry over their meal, clean their cooking-pots, turn them upside down and leave them in the camp, as they would not need to carry them further. There the place was called O-hmauk (အိုးမှောက်), which later on become Obauk.

The lovers were caught about two miles beyond Obauk. Each was cut into three pieces and the pieces were thrown away. The place where they were killed is known to this day as Mè-saw-thon-baing-kya-thon-baing (မယ်စောသုံးပိုင်းကျားသုံးပိုင်း).

Pagodas.

Shwemyindin Pagoda.—This stands on an isolated hill about six miles east of Yamèthin. Tradition names Asoka as the first to build a pagoda there, but Anawrata, Kyansittha, Alaungsithu and Narapatisithu of Pagan, Queen Atula and Mohnyinmindaya of Ava, Yamèthin Thihapatimin, and Thadomindaya are all said to have built, extended or repaired them. U Khanti now an old man and a trustee of the pagodas on Mandalay Hill, was in his younger days a hermit. He is a native of Theingon, a village half way between Yamèthin and the Shwemyindin. In 1898 he is said to have spent a lakh of rupees on repairing three tanks and five wells there and building *zayats* for the huge crowds that attend the annual festival.

Onhmin Pagoda.—This is seven miles from Nyaunglun Railway Station. The site is supposed to be on the spot where a cow buffalo hid her bull calf so that he should not be gored by its father. On the east of the pagoda is an entrance south of which on the rock is the hoof-print, about two and a half inches in length, of a young buffalo. West of the pagoda is a vault in which there is an image of a cow buffalo and her calf. About two miles away there is a lake called *Gyogya In* because the bull buffalo dropped one of his horns there, and about another two miles away there is a

village called Kywèlèbin because it was there the old buffalo died from being gored in the throat by his son when the latter grew up.

Padamya Shwegu Pagoda at Yindaw.—The foundation of this pagoda, as of the Shwemyindin, is attributed to Asoka, who after laying the foundation stone of the Shweyinmyaw Pagoda at Meiktila, is said to have come to Yindaw and built the Padamya Shwegu Pagoda. It was rebuilt latter by Pyusawdi Min and Anawrata. The latter, it is said, had a hole 15 cubits deep dug to the east of the pagoda in which were placed 1,000 gold boxes, 1,000 silver bricks and 1,000 copper bricks ; the hole was then filled up. The king gave an *ahlu* lasting seventeen days at which 428 *pongyis* attended and 1,00,000 rupees were spent.

Inbin Shwegu Pagoda.—This pagoda is comparatively modern. It was built by Bodawpaya in 1799 A.D. and owes its inception to a dream he had. The king went from Amarapura to Toungoo on a visit, and while halting at Inbin on the way had a dream that he was to build a pagoda there. The pagoda is built in the centre of a square of two miles each side. The square is marked off by a stone pillar containing *kyauksas* showing the king's order that the land so enclosed was to be used as a sanctuary for all animals.

Shwelethla Pagoda.—This is in Yanaungmyin Village-tract about two miles north of Lèwe. The legend of the foundation of this pagoda is in Chapter II under the heading "Asoka" to whom it is customary to attribute most of the ancient pagodas in this district. There is then a legend of the legendary King Thamoddarit, founder of Pagan, who fought Talaings here (long before Alaungpaya's battle with them at Yanaungmyin) and who was wounded in the right hand. He promised to rebuild the pagoda if his hand were healed. His hand was healed miraculously and he fulfilled his promise. The pagoda he rebuilt was called Lethla or Shwelethla on this account. The repairing and dedication of land to the pagoda by Alaungsithu has already been detailed in Chapter II under the heading "12th Century." It is added that Alaungsithu enshrined a relic of the Buddha and also a gold image of himself equal in weight to his own. Tradition gives the date of these repairs and embellishments as 566 B.E. (1204 A.D.), whereas Alaungsithu died in 1167 A.D. The next mention of the pagoda is not until 1200 B.E. (1838 A.D.), when it is said to have been destroyed by a great earthquake. The then *Myothugyi* of Pyinmana, known as Nemyothamanda Kyawthu caused one U Ah Dok to rebuild it. In 1869 the top of the pagoda was blown off in a storm, but a new top and *hti* were put on. Only seven years later, in 1876, the

pagoda was struck by lightning. It was than rebuilt by the Gaingok *Sayadaw* U Keiddima of Bawdigon with the help of the local headmen and villagers.

Two pagodas at Pyinmana, both modern, but each having its annual pagoda festival, are the Lawkamarazein and the Lawkayanhnein. The former was built in 1872 A.D. by Mindon Min, the latter in 1883 A.D. by a guards commander, a cavalry commander and the townspeople.

Notes on the Gaudapalin (Gandapalin Pagoda) at Taungnyo, on the Komokpyan Pagoda on the Ledwindaung and on the Tagogyi Pagoda on the Sinbyudaung are to be found respectively in the notes on Taungnyo, Ledwindaung and Sinbyudaung. The Gandapalin Pagoda is also referred to in Chapter II under the heading "Asoka."

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